THE GOVERNMENT OF THE PHILIPPINE ISLANDS
DEPARTMENT OF THE INTERIOR
BUREAU OF HEALTH

REPORT OF THE BUREAU OF HEALTH FOR THE PHILIPPINE ISLANDS

FOR THE SHORT FISCAL YEAR FROM JULY 1, 1913, TO DECEMBER 31, 1913

VICTOR G. HEISER, M. D.
DIRECTOR OF HEALTH
Surgeon, United States Public Health Service.

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BUREAU OF PRINTING
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DEPARTMENT OF THE INTERIOR,
BUREAU OF HEALTH FOR THE PHILIPPINE ISLANDS,
Manila, February 13, 1914.

SIR: I have the honor to submit herewith the following report of the health and medical work with tables of vital and other statistics of the Bureau of Health for the six months ended December 31, 1913. On account of the fiscal year having been changed by the Legislature to correspond to the calendar year, this report covers the transactions for six months only.

TAKING STOCK.

There are now over 60,000 less deaths in the Philippines per annum than there were in 1905. This reduction has occurred almost entirely among the preventable diseases and may therefore be regarded as an index of the effect of health work in the Philippine Islands. There is room, however, for further improvement. Tuberculosis, malaria, beriberi, and intestinal diseases, all of which are preventable, are still responsible for more than 100,000 deaths annually. The results which have already been achieved should act as a stimulant to the effort to make a large reduction in this number during the next few years. The knowledge with which to accomplish this is available and it is only necessary to apply it faithfully. A substantial start toward this goal has been made.

It is estimated that malaria was responsible for at least 25,000 deaths annually. If each victim could have been treated with an adequate amount of quinine, practically all of these lives could have been saved. By the coöperation of various branches of the Government, arrangements have now been completed for the sale of quinine at a nominal rate by over 700 municipal and township treasurers throughout the Islands. For those who are unable to pay even a small amount there are several million doses of quinine available for gratuitous distribution.

Knowledge with regard to the manner in which beriberi may be prevented is being rapidly disseminated among the masses and it is hoped that a reduction in the number of deaths from this disease will now take place.

A circular of information as to the proper disposal of human excreta has been completed and a general adoption of the system therein advocated will result in the saving of many thousands of lives.

The hospital system in Manila and the provinces has now been extended to a point where additional Insular aid cannot reasonably be expected for its maintenance and further progress along this line should come from funds made available by provincial or municipal governments or private individuals.

From the foregoing it is apparent that there is enough work outlined, the accomplishment of which will pay heavy dividends in the form of lives saved, to use up all of the appropriations which are in sight. Until more money is available, additional projects which require the expenditure of substantial amounts cannot be undertaken.

COMPARISON OF RESULTS WITH MONEY AVAILABLE.

It is doubtful whether any country has ever reaped such large returns in improved health and reduced mortality with so small an expenditure of funds as have been realized in the Philippine Islands. The tremendous reduction in the death rate referred to above has been brought about by an expenditure of about 20 centavos per capita per annum, and when it is remembered that the results were obtained under a strictly civil régime where each obstacle had to be conquered by persuasion or laboriously fought through the courts, it is indeed remarkable that the results should compare so favorably with those achieved under more mandatory methods.

A ₱100,000 APPROPRIATION FOR THE IMPROVEMENT OF LIVING CONDITIONS AMONG THE POOR.

The appropriation bill for the city of Manila for the fiscal year 1914, approved by the Governor-General, provides a fund of ₱100,000 for improving the living conditions among the poor and specifies that its expenditure must have the joint approval of the city engineer and the Director of Health. Many demands were immediately made for funds from this appropriation, which were, for the most part, for the betterment of minor conditions. In view of the urgent necessity of finding proper building space for many of the poor residents of the city of Manila who now live in hovels which should be immediately condemned, it is thought that this fund should be expended for improving the housing conditions of the largest number. Briefly, the sanitary improvement of that land which would give the greatest number of lots at the lowest unit cost was believed to be the best plan to follow, instead of expending this sum here and there in correcting minor insanitary conditions. In conjunction with the city engineer's office, a number of such sites were investigated and the recommendations for the spending of this money are now before the Municipal Board.

SPREAD OF ATHLETICS IN THE PHILIPPINES.

Even a brief study of the physical condition of the Filipino people soon results in the inevitable conclusion that on an average they are a frail people from a physical standpoint and that before they can stand the strain and stress of a high-class modern civilization a sounder body must be built. It has therefore been one of the most constant endeavors of the Bureau of Health to encourage the spread of athletics among the people. Early in the American régime the schools were encouraged to make an active campaign to bring this about and their efforts have had the hearty support of all branches of the Government. A few years ago there was scarcely a baseball nine or a football team, or any particular love for strenuous outdoor exercise, whereas to-day there is scarcely a town or village in the Philippines in which baseball is not actively played. The development along these lines has been so rapid that even now the Islands can boast of many athletes who for their size and weight will compare favorably with those of other countries. The younger as well as a good share of the older population is apparently convinced of the desirability of physical development and great interest in outdoor sports is becoming everywhere noticeable.

MANILA'S DEATH RATE STILL DECLINES.

The death rate for the city of Manila, in spite of the appearance of cholera, shows a further decline. For the last fiscal year the rate was 26.69 per 1,000 per annum, whereas for this fiscal year it was 24.98. The death rate among Americans was 10.34. If the death rate were to be computed on the basis of the census of January, 1914, it would be 23.18.

DEATH RATE AMONG GOVERNMENT EMPLOYEES.

The death rate among Government employees for the period covered by this report was 5.6 per 1,000, the rate among Americans being 6.39 per 1,000, and among Filipinos 4.77 per 1,000. Even after allowance is made for the favorable conditions surrounding public employees, especially with regard to the fact that very few of them are old, the rate speaks well for the climatic conditions of the Philippine Islands.

COMPARATIVE STATEMENT OF DEATHS IN MANILA WITH AND WITHOUT MEDICAL ATTENTION.

The following comparative statement of the number of deaths in Manila from 1904 to 1913, inclusive, a period of ten years, demonstrates that the people are appreciating medical services more and more and that the death rate is gradually decreasing:

Year.	Deaths.	With medical attendance.	Percentage receiving medical attendance.
1904	11,033	5,540	50.21
1905	9,369	5,269	56.23
1906	9,528	5,328	55.99
1907	7,613	4,289	56.33
1908	11,180	5,928	53.02
1909	8,566	4,658	52.02
1910	8,507	4,679	55.00
1911	8,808	4,940	56.08
1912	8,536	5,114	59.91
1913	6,950	4,485	64.53

The foregoing figures clearly demonstrate that there has been a steady and appreciable increase in the number of sick seeking and receiving medical attendance. A comparison between the years 1904 and 1912 and 1913, shows an increase of 9.70 per cent for 1912 and of 14.32 per cent for 1913 of persons receiving medical attendance. It is known that with comparatively few exceptions deaths are the result of illnesses extending over a considerable length of time and that the patients receive medical assistance at some time or other during the progress of the disease; but, for reasons of indifference or despair, from lack of funds, or for other reasons, persons afflicted with such extended illnesses discontinue the aid of science and resignedly await the end, or probably depend upon household remedies. As the physicians that they formerly employed were not in attendance at the time of death, such physicians are disinclined to issue certificates of death, thus obliging the relatives and friends to call upon the municipal physicians for these documents, and when the municipal physicians make inquiry as to whether or not the patients had medical attendance, as a usual thing the relatives of friends in order to avoid explanations, state that they did not.

In view of these facts and bearing in mind the uncertainty of the data with regard to medical attendance, it is safe to say that the establishment in Manila, in recent years, of various hospitals, and especially the General Hospital, at which an increasing number of sick are being treated, has contributed to a growth in the number of those who seek medical assistance, far greater than is suggested by the figures submitted.

CHRISTMAS AT THE CULION LEPER COLONY.

It is indeed very pleasant to be able to report that through the generosity of the Manila public it was again possible to provide each leper at Culion with a small Christmas remembrance. The school children of the city of Manila are especially entitled to credit for gathering together a large part of these Christmas presents. The Government purchased over 2 tons of candy and popcorn to gladden the hearts of the lepers, as well as sufficient oranges and other fruits to provide for a distribution to all.

THE MANILA MILK SUPPLY.

With the exception of that from less than a half dozen dairies, the fresh milk that is placed on the market in Manila is still not what it should be. One of the reasons for this is that the cows from which a large portion of the milk is obtained are kept outside of the city limits, and are the property of persons who have, probably, only one cow and who have no fixed place of abode, for which reason it is impracticable to enforce regulations, as could be done in the United States. Much of the milk, also, comes from the caraballa, or water buffalo. The fats and some other important ingredients in this milk are often double those found in cow's milk. In order to imitate cow's milk, this is frequently diluted one-half or more with water. The proteids are then in disproportion, so rice flour is added. If the fats have then been too greatly reduced, coconut oil is sometimes added. The resulting mixture is a most insanitary substance. One specimen of milk examined contained 62,391,600 bacteria per cubic centimeter.

Discouragingly slow progress has been made in providing a building for the installation of the milk sterilizing plant which was donated by Mr. Nathan Strauss of New York. The last Legislature made an appropriation to "La Gota de Leche," the society for the protection of infants, for the construction of such a building on the condition that arrangements be made for Pasteurizing or sterilizing the Manila milk supply.

It is gratifying to report, however, that a few of the leading dairies have made substantial improvements and some of them will now compare favorably with first-class dairies in the United States. The small dairyman, however, who has only a few carabao, goats, or cows which he keeps under filthy conditions is still a great source of danger and until his milk can be sterilized before it is supplied to the Manila public it will undoubtedly be the cause of considerable harm.

CANNED MILK.

The lack of fresh milk is largely compensated for by importations of natural milk and condensed milk.

During the period covered by this report the importation of skimmed milk has greatly increased, and the question of its prohibition will be taken up with the Philippine Legislature.

The people buy the milk that is cheapest. The importers and manufacturers are not particularly explicit in telling them that skimmed milk is not suitable for babies under 1 year of age, so the people buy the skimmed milk and feed it to their babies, thus depriving them of certain substances that are essential to their well-being.

In order to protect themselves, the importers who have heretofore handled the full-cream milk threaten also to import skimmed milk so that they can meet the competition in prices. This would bring about a formidable and dangerous situation with respect to infant feeding, as the majority of people, especially in the provinces, are not aware of the difference in food value and are inclined to buy that which is cheapest.

The same situation arose in Hongkong and was met by a special ordinance requiring the skimmed milk to be labeled "Not fit for the feeding of infants under 1 year of age." More than this will have to be done in the Philippine Islands, for the reason that there are so many dialects and so many people who cannot read the label, and it has therefore been proposed that an internal-revenue tax be placed upon skimmed milk sufficiently high so that it cannot successfully be sold in competition.

Importations of milk into the Philippine Islands.

Fiscal year.	Condensed.		Whole.	
	Quantity.	Value.	Quantity.	Value.
	Pounds.		*Gallons.*	
1903	3,070,028	₱494,732	------	------
1904	3,233,052	502,522	8,804	₱4,988
1905	3,018,376	467,334	8,537	7,556
1906	3,776,761	568,990	34,879	22,856
1907	3,646,264	579,578	69,030	54,870
1908	4,147,413	698,614	81,669	73,254
1909	4,752,733	813,214	113,397	94,466
1910	6,371,129	951,764	149,656	98,628
1911	9,507,983	1,247,082	145,922	133,662
1912	11,411,590	1,531,096	267,962	220,028
1913 (July 1, 1912, to June 30, 1913)	9,927,069	1,443,202	271,765	222,574
1913 (July 1 to Dec. 31)	6,451,683	889,276	148,139	127,512

THE PROVINCIAL MILK SUPPLY.

Rinderpest has destroyed the cattle industry throughout the country, and the people rely largely on canned milk, though the milk of the carabao and goat is used to some extent. Fortunately the situation has been met by the importation of excellent full-cream milk.

DEATH OF MR. MEHAN.

The cause of sanitation lost one of its foremost supporters in the death of Mr. John C. Mehan, which occurred on December 13, 1913.

For several years Mr. Mehan was in charge of the department of sanitation and transportation of the city of Manila under which department came the care of the public parks, and it is largely through his efforts that the practical work of beautifying the city was carried on to the degree of success it has attained.

Every newspaper in the Philippines published complimentary notices of the life and work of the deceased. The following simple and eloquent tribute was written by his personal friend Dan O'Connell, editor of the Philippines Monthly:

> One of the best Americans who ever came to the Philippines passed away on the 13th of December, but as long as Manila lasts so shall his memory live.
>
> John C. Mehan left many monuments behind him in beautiful cemeteries, parks, markets, and other public improvements; but best of all, he left a reputation of sterling integrity, honesty, and uprightness. John Mehan was a big man in every way. He was a man of the people and he worked untiringly for the people. When other Government officials were enjoying themselves at social functions, John Mehan was planning new ways to improve the health and pleasure of the residents of Manila. His hand was ever in his pocket to aid any distressed person and no tale of sorrow ever failed to find from him generous assistance. His was a most kindly nature and he overlooked the faults of those around him and saw only their good qualities. His death was a great loss to the people of this city.

ICE-CREAM FORMULAS.

In connection with the enforcement of the Food and Drugs Act with regard to ice cream a number of difficulties were encountered which are not ordinarily met with in the United States. In the Philippines there is practically no fresh milk or cream, all of this being imported in cans either from Europe or the United States. It was claimed by ice-cream manufacturers that it was impossible to make ice cream from canned milk and cream in accordance with the Food and Drugs Act standards, owing to the formation of butter before the ice cream could be satisfactorily frozen. This contention was found to be based, in part, on fact, and accordingly a number of experiments were undertaken at the Bureau of Science. It was found, finally, that a most satisfactory ice cream could be manufactured from canned milk by any of the following formulas:

Formula No. 1.

(Milkmaid condensed milk and Milkmaid cream.)

	Weight.
Milkmaid condensed milk (1 tin)	336 grams.
Milkmaid cream (3 tins)	456 grams.
Sugar	150 grams.

Formula No. 2.

(Bear Brand condensed milk and Bear Brand cream.)

	Weight.
Bear Brand condensed milk (1 tin)	336 grams.
Bear Brand cream (1½ tins)	307 grams.
Sugar	150 grams.

Formula No. 3.

(Milkmaid condensed milk and Bear Brand cream.)

	Weight.
Milkmaid condensed milk (1 tin)	336 grams.
Bear Brand cream (1½ tins)	307 grams.
Sugar	150 grams.

In each formula the sugar should be dissolved in a small quantity of warm water before adding. Add sufficient boiled or distilled water to make the entire solution 1 liter. Freeze in the usual manner.

The weight of the ice cream thus produced is about 1.1 kilograms.

There is no reason to believe that any other standard brand of milk would not answer equally as well as the brands mentioned in the above formulas.

HEALTH BULLETINS.

Judging from the number of applications which are constantly received for the health bulletins that are published from time to time with regard to matters of public interest, these publications are evidently appreciated. The following bulletins have been published:

1. Infectious Diseases in the Philippine Islands.
2. Asiatic Cholera in the Philippine Islands.
3. The Care of Infants.
4. Cholera.
5. Tuberculosis.
6. Dysentery and How to Avoid It.
7. Cholera Measures.
8. Instructions for Simple Remedy Packages.
9. Poisonous Fishes of the Philippine Islands.
10. Philippine Habitations.
11. Insects and Disease.
12. Beriberi and How to Prevent It.

The last bulletin, No. 13, entitled "Disposal of Human Wastes in the Provinces," has just been completed and is now in the hands of the printer. This bulletin outlines a practical plan from a legal, financial, and sanitary standpoint by which human wastes in the provinces may properly be cared for. There is included a model ordinance which has already been adopted in a number of municipalities and is working satisfactorily in actual practice.

PUBLIC LECTURES.

Through the operation of the Fajardo Law and by special detail from the central office, many medical officers have given public lectures on health topics throughout the Islands. Dr. Vicente de Jesus has spent a number of months traveling about the various provinces giving lectures on health topics which were illustrated with moving-picture films and lantern slides. These meetings are almost invariably very largely attended and the lectures are enthusiastically received. An additional machine has been purchased and will soon be in operation.

SANITARY INSPECTORS' HANDBOOK.

The Sanitary Inspectors' Handbook, of which mention was made in the last annual report, has received most favorable comment from sanitarians in many parts of the world. It is therefore all the more to be regretted that soon after the books were sent out to the doctors and sanitary inspectors in the employ of the Bureau of Health located in different parts of the Islands, so much opposition should be encountered to the requirement of an examination upon its contents. It must be obvious that before the medical officers of the Bureau can successfully teach subordinates in the duties outlined in the Sanitary Inspectors' Handbook, they themselves must be proficient in its subject matter. It is no more undignified to require a physician to demonstrate knowledge, especially with regard to facts that have been discovered since he graduated, than it is for a physician to take a postgraduate course. Through the kind assistance of the Colegio Medico y Farmaceutico de Filipinas, the book has been translated into Spanish and will soon be available for distribution, and those who desire may take the examination in that language.

SCHOOL OF SANITARY INSTRUCTION.

On account of the lack of training in sanitary matters, and particularly with regard to bureau administration, among applicants for medical positions in the Bureau of Health, the practice has been adopted of requiring such applicants before appointment to serve a number of months as interne in the Philippine General Hospital and then to undergo a month's training in municipal sanitation under Medical Inspector Rosario at Station A, in the Meisic District.

Persons undergoing this training have not been paid any salaries.

Of those officials who desire to be appointed as district health officers, both the course in the Philippine General Hospital and at Station A has been required. Of those who desire to be appointed as presidents of municipal boards of health and particularly those who are applicants for the position of president of a municipal sanitary division, the course at Station A alone was required. The following are the subjects in which instructions are given at Station A:

FOUR-WEEK PRACTICAL COURSE ON MUNICIPAL SANITATION.

Schedule of Proceedings.

(1) Management of dangerous communicable diseases.	Disposition of cases and contacts. Inspection of dead bodies. Taking of samples. Administration of vaccines and serums.	
(2) Disinfection	For cholera, dysentery, typhoid fever. Plague. Diphtheria. Eruptive fevers. Tuberculosis. Insecticide campaign. Vermin extermination. Disinterment of human remains.	
(3) Vaccination	Philippine Acts and ordinances regarding vaccination. Time to perform. People compelled to, and exempted from. Organization of the vaccinating force and traveling expenses. Reports on vaccination.	
(4) Station free dispensary and medical attendance. Medico-legal cases.	Indigent people. Government officials and employees.	(*a*) In the dispensary. (*b*) Doctor's residence. (*c*) Patient's residence.
	Prisoners	Only in the dispensary.

- (5) Inspection
  - House to house.
  - Schools.
  - Licensed places.
  - Taking of food and drink samples.
  - Markets.
  - Slaughterhouses.
  - Cigar factories.
  - Tenement houses.
  - Vessels and bancas.
- (6) Nuisances
  - 1. Needing nonstructural method of abating:
    - (*a*) Cleaning.
    - (*b*) Whitewashing or painting.
    - (*c*) Minor repairs of floors and drainage.
    - (*d*) Cleaning of vaults.
    - (*e*) Installation of pails.
    - (*f*) Illegal constructions, etc.
    - (*g*) Improper disposal of refuse (not sewage).
  - 2. Needing structural method of abating:
    - (*a*) Sewer connection, etc.
- (7) Licenses (inspection of places and sanitary facilities).
  - Restaurants (A, B, C).
  - Dairies.
  - Bakeries.
  - Bottling factories.
  - Barber shops.
  - Hotels and boarding houses.
  - Lodging houses.
  - Bars and saloons.
  - Meat markets and cold stores.
  - Stables.
  - Laundries.
  - Morgues and undertaking establishments.
  - Dance halls.
  - Theaters and cinematographs, etc.
  - Peddlers' licenses.
  - Offensive and dangerous businesses.
- (8) Records
  - Births.
  - Deaths.
  - Licenses.
  - House-to-house inspection.
  - Station orders.
  - Recommendations for extensive repairs.
  - Insane.
  - Dangerous communicable diseases.
  - Tenement houses.
  - Cigar factories.
  - Laboratory requests and reports.
  - General official correspondence.

- (9) Keeping of Government property.
  - 1. Nonexpendable property:
    - (*a*) Responsibility for it.
    - (*b*) Method of filing documents in case of loss or destruction.
  - 2. Expendable property:
    - (*a*) Medicines.
    - (*b*) Disinfectants.
    - (*c*) Certain stationary articles.
    - (*d*) Others.
- (10) Personnel and discipline..
  - Number and names of men on duty; ranks and residences.
  - Qualifications for entrance and knowledge of work.
  - Uniforms (if any).
  - Efficiency report.
  - Method of promotion.
  - Disciplinary punishments.
- (11) Reports ....
  - Daily:
    - Census (every 2 or 3 years).
    - Sanitary report.
    - Rats.
    - Disinfections.
    - Vaccination.
  - Weekly:
    - Dressing tickets.
    - Rats.
    - Assistant sanitary inspectors (subdistrict detail).
  - Monthly:
    - Medical attendance.
    - Sanitary report.
    - Stamps.
    - Street car tickets.
    - Blank form No. 22.
    - Carromata.
    - Licenses and action taken.
    - Efficiency of assistant sanitary inspectors.
    - Births.
    - Vaccination.
    - Pay roll.

Time distribution.

Subject.	First week.		Second week.		Third week.		Fourth week.	
	A. M.	P. M.	A. M.	P. M.	A. M.	P. M.	A. M.	P. M
(1) Management of dangerous communicable diseases	8.00- 9.30	2.00-3.00	8.00- 9.30	2.00-3.00	8.00- 9.30	2.00-3.00	8.00- 9.30	2.00-3.00
(2) Disinfection	9.30-11.00	---------	9.30-11.00	---------	---------	---------	---------	---------
(3) Vaccination	---------	---------	---------	---------	---------	---------	---------	3.00-5.00
(4) Free dispensary	8.00- 9.30	2.00-3.00	8.00- 9.30	2.00-3.00	8.00- 9.30	2.00-3.00	8.00- 9.30	2.00-3.00
(5) Inspection	---------	---------	---------	---------	9.30-11.00	---------	9.30-11.00	---------
(6) Nuisances	---------	---------	---------	---------	3.00- 5.00	3.00-5.00	---------	---------
(7) Licenses	---------	3.00-5.00	---------	3.00-5.00	---------	---------	---------	---------
(8) Records	11.00-12.00	---------	11.00-12.00	---------	---------	---------	---------	---------
(9) Government property	---------	---------	---------	---------	11.00-12.00	---------	11.00-12.00	---------
(10) Personnel and discipline	11.00-12.00	---------	11.00-12.00	---------	---------	---------	---------	---------
(11) Reports (daily and monthly)	---------	---------	---------	---------	11.00-12.00	---------	11.00-12.00	---------

FIRES AS AN AID TO IMPROVED SANITATION IN PROVINCIAL TOWNS.

Destructive fires in the Philippines, in which large numbers of blocks or areas of provincial towns are destroyed, are very common. This gives an opportunity for widening narrow streets, rearranging defective drainage, and applying the building ordinances in an economical manner. Important progress in this regard has been made in Cebu, in Lucena, in Baliuag, and in certain districts of Manila in which destructive fires have occurred.

WATER SUPPLY OF THE CITY OF MANILA.

A more detailed study of the present water supply of the city of Manila shows that the amount made available by the present collection area and storage capacity will be entirely inadequate during the extreme dry seasons which are almost certain to occur every few years. The question is further accentuated by the fact that there is a constant increase in the consumption of water in Manila, caused by the extension of the system to places heretofore not supplied and the more general installation of modern plumbing. Since experience has actually demonstrated that the death rate in Manila will rise at the rate of from 1,800 to 2,000 deaths per annum when water is used which is pumped from the Mariquina River at Santolan, it is apparent that additional unpolluted water must be made available for the city if the public health is to be protected. Whether this can be done by purifying water from the Mariquina River or whether it should come from an uninhabited watershed or whether additional storage should be provided is an engineering question that should receive immediate attention.

EXPERIMENTS MADE BY THE BUREAU OF SCIENCE ON THE CONTAMINATION OF WATER BY EXPOSURE TO THE ATMOSPHERE.

In order that small restaurants, eating houses, refreshment counters, etc., may furnish a safe drinking water to the public at a reasonable cost, the Bureau of Health has recommended that all of them install plain teakettles for rendering drinking water sterile. From time to time prosecutions are made whenever it can be shown that the water contains amœbae or pathogenic bacteria, this being considered evidence that the water had not been properly sterilized and protected. Some complaint has been made by the persons affected, who stated that the water had been properly boiled and that it must have been contaminated later. In order to have definite information available an investigation was made at the Bureau of Science. It was found that water that had been thoroughly boiled and left exposed to the room atmosphere and then examined bacteriologically gave the following results:

Time exposed.	Colonies per c.c.	Presumptive test.	Attempt to isolate bacillus coli.	Amœbae.	Ciliates.	Flagellates.
16 hours	8					
22½ hours	8					
41 hours	74,183					
3 days	31,550	Positive.				
5 days	279,000					
7 days	172,000					
9 days	134,850			Positive.		
12 days				Positive.		
14 days	260,000			Positive.		Positive.

When a similar receptacle was loosely covered by a box, the results were as follows:

Time exposed.	Colonies per c.c.	Presumptive test.	Attempt to isolate bacillus coli.	Amœbae.	Ciliates.	Flagellates.
16 hours	2					
22½ hours	70					
41 hours	149,800					
3 days	976,500					
5 days	290,625					
7 days	93,000					
9 days	18,317					
12 days	508					
14 days	18					

Water similarly boiled and exposed to the dust of an animal house gave the following results:

Time exposed.	Colonies per c.c.	Presumptive test.	Attempt to isolate bacillus coli.	Amœbae.	Ciliates.	Flagellates.
18 hours	376					
3 days	558,000	Positive.				Positive.
5 days	325,200	Positive.				Positive.
10 days	74,400	Positive.				Positive.
12 days	111,600	Positive.				Positive.

When loosely covered with a box, the presumptive test was negative and no organisms could be found at the end of twelve days. The numbers of colonies were as follows: eighteen hours, 8; three days, 3,816; five days, 26,737; ten days, 20,925; twelve days, 6,754. From the foregoing experiments it is shown that there is a progressive increase in the number of bacteria and then a diminution. The contamination is very much less in a covered can. It will therefore be apparent that a laboratory examination of water for the presence of amœbae and pathogenic bacteria, that is presumed to have been boiled within forty-eight hours from the time that it is used, may serve as satisfactory evidence to present before a court.

THE HELMET AND THE CAMPAIGN HAT.

The helmet in the Philippine Islands is being rapidly replaced by the lighter and much more practical hat with a ventilated hatband. The experiments made by the Army Board for the Study of Tropical Diseases showed rather conclusively that the helmet, at least in the Philippines, offers no advantage over a hat which is properly ventilated. Briefly, the advantage which the helmet was supposed to posses over a hat came from the fact that by placing the hatband a quarter of an inch or more from the inner side of the hat permitted the free circulation of air about the head. As this form of hatband can be inserted equally well in a hat, it is not necessary to carry around the heavier, and to many people the unpleasantly stiff and unyielding, helmet. The United States troops have again returned to the use of the campaign hat, which is a felt hat with a broad brim and ventilated hatband, and so far no bad effects have been noticed.

PUBLIC BATH AND LAUNDRY HOUSES.

The public bath and laundry house in the Sampaloc district has been very popular and has met a long-felt need. It is, therefore, gratifying to be able to report that Municipal Ordinance No. 204 of the city of Manila appropriates the sum of ₱12,000 for the construction of additional bath and laundry houses and a contract has already been let for the construction of such a building in Tondo. Statistics kept at the Sampaloc bathhouse show that over 150 persons sometimes bathe there before 7 o'clock in the morning. The spaces which are set aside for laundry purposes are occupied almost constantly, thus showing that the residents in that neighborhood fully appreciate the facilities which have been placed at their disposal.

MANILA SANITARY SEWER CONNECTIONS.

There is still much difficulty in enforcing the ordinance which requires householders to connect their premises with the sanitary sewer. Protests and appeals are of constant occurrence and require much of the time of the personnel of the sanitary engineering division in order to be prepared to present the case to the courts in such a manner as to avoid the many legal technicalities which the lawyers for the defense are able to throw into the path of the enforcement of this ordinance. In spite of these difficulties, however, progress still continues to be made and the number of connections for the past six months shows a gratifying increase over the similar period last year. The connections to date are as follows:

During the fiscal year—	
1909 and 1910	566
1911	1,058
1912	950
1913	503
July 1 to Dec. 31, 1913	326
Total	3,403

GARBAGE AND REFUSE COLLECTION BY CONTRACT.

In the past it has been customary for the city of Manila to collect all garbage, refuse, and street sweepings and to dispose of the same. During the year a contract with a private company for this work was put into operation with the understanding that the collections were to be made in automobile trucks during the night hours and disposed of in a sanitary plant. Soon after the private company undertook this work it encountered many difficulties in complying with its contract. The company was unable with its own equipment to collect all of the garbage and refuse and its plant was inadequate properly to dispose of the same. This led to the dumping of much garbage and refuse on a nearby beach, which soon caused a serious fly nuisance. After repeated notice from the Bureau of Health, the nuisance was not abated, and accordingly on December 1, 1913, the Municipal Board was advised that the company was not complying with its contract and that the method of disposal of the garbage and refuse was a serious menace to the health of the community owing to the breeding of enormous numbers of flies. This danger was accentuated by the presence of cholera in the vicinity of the garbage disposal plant. The Municipal Board immediately suspended the contract and at the present time the city is again collecting and disposing of its own refuse, garbage, and wastes.

A MODIFICATION IN THE GARBAGE AND REFUSE ORDINANCE.

On November 22, 1913, the Municipal Board passed an ordinance which had for its objects the more complete separation of garbage from refuse and the providing of suitable containers for the collection of garbage. The ordinance reads as follows:

[ORDINANCE NO. 208.]

AN ORDINANCE AMENDING CHAPTER SEVENTY-ONE OF THE REVISED ORDINANCES OF THE CITY OF MANILA RELATING TO GARBAGE AND RUBBISH.

Whereas, in accordance with the provisions of Act Numbered Eleven hundred and fifty of the Philippine Commission, the Bureau of Health for the Philippine Islands has drafted and transmitted to the Municipal Board of the city of Manila a proposed health ordinance, duly approved by the Secretary of the Interior, for the regulation of garbage and rubbish; and

Whereas the Municipal Board of the city Manila deems it advisable to enact, without change, the said health ordinance as submitted by the Bureau of Health and approved by the Secretary of the Interior: Now, therefore,

Be it ordained by the Municipal Board of the city of Manila, that:

SECTION 1. Chapter seventy-one of the Revised Ordinances of the city of Manila is hereby amended to read as follows:

"CHAPTER 71.—*Garbage and rubbish.*

"SEC. 687. *'Garbage' defined.*—The word 'garbage' whenever used in this title shall include the refuse of such animal or vegetable matter or food supplies as were intended for human food but have been rejected for such use, dead animals weighing approximately less than fourteen kilos, offal, and the refuse of slaughterhouses.

"SEC. 688. *'Rubbish' defined.*—The word 'rubbish' whenever used in this title shall include waste or used papers, pasteboards, woven materials, matting, straw, wood, husk, metal cans, or other metallic vessels, broken glass or porcelain; also loose or decayed materials and dirtlike substance which may accumulate from repairing operations or from storing or cleaning of property and goods; and the dung of cattle, horses, mules, and other animals, and stable litter, refuse, and sweepings; and any other matter of similar kind which the development of any business or industry in the city may produce.

"SEC. 689. *Receptacle, requirements as to.*—A separate receptacle shall be provided and maintained for garbage, and another for rubbish. All receptacles for garbage shall be water-tight, fitted with tight covers, and shall be not less than twenty-five centimeters in depth by twenty centimeters in diameter, nor more than eighty-one centimeters in depth by forty-seven centimeters in diameter, fitted with handles, and of such construction as readily to permit handling. It shall be unlawful for any person or persons to place or to keep garbage in any place or vessel other than the proper garbage receptacles provided therefor. No garbage receptacle shall be filled to more than approximately ten centimeters from the top thereof.

"Rubbish receptacles shall be suitable and appropriate for containing rubbish with safety and without leakage or spilling.

"SEC. 690. *Owners, agents, or administrators of buildings to provide and maintain garbage receptacles; Occupants or tenants to provide and maintain rubbish receptacles.*—The owner or owners, agent, or administrator of every building, premises, or place of business, shall provide and at all times maintain in such building, premises, or place of business, for the use of the occupants thereof, suitable and sufficient garbage receptacles to contain, without leakage, all the garbage that may accumulate for each period of twenty-four hours in or upon such building, premises, or place of business, and it shall be unlawful for any person to lease, sublease, or turn over to another, for occupancy, any building, premises, or place of business, or any part or portion thereof, without providing such garbage receptacles.

"The department of sanitation and transportation, upon request by such owner, agent, or administrator, shall furnish, maintain, and replace in case of loss all the garbage receptacles required by this section for use in the city of Manila for an annual rental of not more than three pesos for each receptacle; and it shall be unlawful for any person to use, or for any owner, agent, or administrator, as required in the next preceding paragraph, to provide any receptacle for garbage, other than one so furnished by the department of sanitation and transportation, without first obtaining from the Director of Health a certificate that such a receptacle, proposed so to be used or provided, is suitable and sufficient in kind, capacity, and condition: *Provided,* That the chief of the department of sanitation and transportation, in his discretion, may furnish without cost such garbage receptacle to people living in houses that have no sewer or water connection.

"The occupants or tenants of every building shall provide and at all times maintain in such building suitable and sufficient rubbish receptacles to contain all the rubbish that may accumulate for each period of twenty-four hours in or upon such building.

"SEC. 691. *Time to place receptacles on sidewalk; Large quantities of rubbish.*—It shall be the duty of the occupant of every building, premises, or place of business to have the receptacles for garbage or rubbish placed on the outer edge of the sidewalk each day, or at the outer edge of the street if there be no sidewalk, at such time, not earlier than eight o'clock postmeridian, nor later than eleven o'clock postmeridian, as may be directed by the chief of the department of sanitation and transportation: *Provided, however,* That whenever there are large or unusual quantities of rubbish or trade refuse to be removed from any building, premises, or place of business the occupant thereof shall notify the person or persons authorized to collect such rubbish or trade refuse at least twenty-four hours before removal is necessary, in order that proper transportation may be furnished for same: *And provided further,* That whenever there are large or unusual quantities, or to exceed one five-ton truck load, of garbage or rubbish, condemned goods, building or trade refuse to be removed from any building, premises, or place of business, the occupant thereof shall provide the necessary transportation and remove the same under the direction of the chief of the department of sanitation and transportation.

"SEC. 692. *Collection of contents of receptacles.*—It shall be the duty of the department of sanitation and transportation, or any authorized collector, to collect daily the contents of such receptacles, in suitable carts, trucks, or other vehicles: *Provided,* That whenever it comes to the knowledge of the Director of Health that the emptying of the receptacles at the point of collection by the garbage collector is a source of nuisance it shall be the duty of the department of sanitation and transportation, or any authorized collector upon the request of the Director of Health, to collect daily the receptacles containing garbage, in suitable carts, trucks, or other vehicles, replacing each loaded receptacles thus removed with a receptacle cleansed and disinfected as provided by the Bureau of Health: *And provided further,* That in each case where the Director of Health requires the daily removal and replacement of receptacles at hotels, hospitals, boarding houses, and any other exceptional case the expense of such removal and replacement shall be borne by the occupant of the premises, but in no case shall the charge exceed the actual cost of this service.

"SEC. 693. *Interference with garbage or garbage collector.*—No person other than the owner or an authorized collector shall interfere with or disturb any garbage after it shall have been put in a garbage receptacle and placed in an accessible place for collection, nor shall any unauthorized person molest, hinder, delay, or in any other manner interfere with any garbage collector in the discharge of his duty.

"SEC. 694. *Regulating vehicles for hauling refuse.*—The boxes or bodies of vehicles for hauling manure or dry waste and refuse must be sufficiently tight to prevent any leakage or escape of their contents.

"SEC. 695. (*a*) *Disposal.*—As soon as the garbage wagon or vehicle is loaded it must be driven at once to the specified place of disposal and on no account be allowed to stand in the vicinity of any human habitation, school-house, or place of assembly. All such materials must be disposed of within twelve hours after collection.

"(*b*) *Sale or removal.*—It shall be unlawful for any unauthorized person or persons to sell, remove, or cause the sale or removal of slops, decayed vegetables, fruits, unwholesome or decayed meats, or fire-damaged foodstuffs without a permit issued by the Director of Health or his representative."

SEC. 2. This ordinance shall take effect on January 1, 1914.

Enacted, November 22, 1914.

It is felt that this ordinance will result in a long step forward in making Manila a more sanitary city. It will greatly reduce the amount of rat food available and therefore be of great assistance in reducing the danger from plague. In the second place, the garbage will be properly covered, especially when placed on the sidewalk for collection and therefore the odors which in the past have been so disagreable will be largely obviated. The old ordinance provided that each householder should furnish his own garbage receptacle, but the ordinance was found to be impracticable of enforcement because the receptacles were stolen almost as rapidly as they were purchased and it did not seem fair to compel householders continuously to incur this loss. By having all garbage receptacles of uniform size, and it being cheaper to rent one from the city than to purchase one, there will be no incentive to anyone to steal garbage cans with the hope of selling them to other persons.

REGULATION OF DANCE HALLS.

The ordinance passed by the Municipal Board of the city of Manila for the regulation of dance halls went into effect on July 1, 1913, with the immediate result that the women who were heretofore regular visitors to the city dance halls declined to undergo the examinations required by law and in almost every instance transferred their activities to the small towns which are located around Manila. It was obvious that the intent of the law was being defeated. This matter was taken up through the Executive Secretary with the provincial board of Rizal Province, with the result that each municipality located near Manila passed an ordinance similar to the Manila dance-hall ordinance and all the women have now come under inspection. A most shocking physical condition was found to exist among these women. Large numbers of them suffered from venereal diseases. These are now excluded and arrangements have been made for their treatment.

INSPECTION OF PUBLIC MARKETS.

In the city of Manila a sanitary inspector is detailed to every market to enforce the sanitary ordinances and the regulations of the Bureau. Two of their greatest difficulties are to prevent the people from handling meat with their hands and to prevent expectoration on the floor of the market. To prevent the handling of meat, screened cages with sliding doors large enough to cover two stalls have been provided and the meat is kept behind these screens. The only person having access to the cage is the seller, so that the prospective buyers have no opportunity to handle the meat, and the structure of the cage also keeps out flies. To prevent expectoration on the floor the markets are being provided with many additional cuspidors, which it is hoped may have at least an educational value.

In the provinces market inspection is one of the duties of the local health officer. They are also inspected by the district health officer at irregular intervals.

NEW MARKET CONSTRUCTION IN THE PROVINCES.

Rapid progress continues to be made in the construction of new market buildings throughout the provinces. These projects are stimulated by the fact that municipalities are able to obtain loans from the Insular Government for this purpose. The fees accruing from the rental of stalls are so profitable that the principal is soon repaid; a constant source of revenue results to the municipality thereafter, and the cause of sanitation is also markedly advanced. During the past six months toilet facilities have been provided near many of the market buildings. This not only serves the purpose of meeting the needs of the population who use the markets, but, as many of them are primitive in their habits they receive instruction in the proper disposal of human wastes, which it is hoped will soon have an important influence for good in the communities in which such persons reside.

ANTE- AND POST-MORTEM VETERINARY INSPECTIONS OF ANIMALS.

Veterinary sanitation comes within the province of the veterinary division of the Bureau of Agriculture, but as that division is not represented in most of the municipalities an agreement has been reached by which the Bureau of Health representatives perform the work where there are no Government veterinarians.

The character and scope of the aforesaid agreement are expressed in the following circular which was issued December 27, 1913.

> The question as to who shall perform ante- and post-mortem examinations of animals slaughtered for human food has been temporarily decided by the placing of such duty upon the representative of the Bureau of Health in all municipalities in the Philippine Islands, with the exception of the city of Manila and the barrio of Sisiman, Mariveles.
>
> As it is probable that very few of the representatives of the Bureau of Health throughout the Philippine Islands have had the necessary technical training in the ante- and post-mortem inspection of animals for slaughter for human food, the following simple instructions from the Bureau of Agriculture for carrying on the work are quoted:
>
> "Do not allow the slaughter of any animal showing fever during the cool part of the day, or having wounds or sores on the body. In particular, horses with sores or showing discharge from the nose should not be slaughtered for food.
>
> "If after slaughter of an animal, pus is found in any organ, that part should be condemned and destroyed. Likewise the meat should be destroyed if it is colored yellow.
>
> "On hogs, tapeworm cysts, *Cysticercus cellulosae*, should be looked for and if found, the carcass should be condemned and destroyed. The exam-

ination is made by cutting into the muscles of the jaw. The cysts consist of little sacs of watery material most frequently found in the muscles of the jaw, but also elsewhere."

Following is a statement with reference to the temperatures of animals, as submitted by the Bureau of Agriculture:

Normal temperature.

Cattle	38.7 to 38.8° C.	Sheep	39.7 to 40.2° C.
Carabaos	38.7 to 38.8° C.	Goats	39.7 to 40.2° C.
Swine	38.2 to 40.7° C.	Horses	38.0 to 38.4° C.

"In this connection the fact must be borne in mind that animals are liable to show a very considerable rise of temperature after severe exercise or exposure to sun and in such cases the slaughter should be postponed until the temperature has returned to normal. Among the smaller animals, like swine, excitement and the resistance offered by the animal when the thermometer is inserted will raise the temperature. It is questionable whether attempt should be made to secure temperatures of other than cattle, carabaos, and horses."

District health officers are requested to see that presidents of municipal boards of health in the various towns within their districts are fully acquainted with the provisions of this circular.

GOVERNMENTAL CHARITIES.

Under the administrative jurisdiction of the Bureau fall the general and special Government hospitals, the medical care of 12,000 civilian employees, the operation of the Food and Drugs Act, and many other things closely or remotely connected with the general welfare of the people, including the administration of public charities.

Miss Norton said in her little book on charities that "the romance of helping the poor is as thrilling as any page of fiction. It is a pleasure that never fags, never exhausts the soul joy." In every municipality of the Philippine Islands the opportunity for thrilling the soul in charitable work is found. If helping the poor is a romance, then there is a chance for everyone who has the means to be romantic.

The same author says that administering to charity makes life worth living, makes it full of beauty, makes human existence thrilling from the cradle to the grave, and reminds us that "the pathos, the glory, and the visions of a greater future are all here."

There are many trying situations in the life of every sanitary official, but as all of them have the opportunity to engage in this great work through the generosity of the Government and through personal desire, their troubles are compensated for in the pleasure of helping.

Until the Americans came to the Islands nearly all charitable work, even to the taking care of the lepers, was carried on by the Roman Catholic orders. The San Juan de Dios Hospital, the Hospicio de San Jose, the Looban Orphan Asylum, the Colegio de Santa Isabel, and other worthy church institutions still exist and minister in mercy to the deserving poor, thus linking the old order of things with the new. The St. Paul's Hospital, the Lolomboy Model Settlement, and other modern Catholic institutions testify to the abiding interest of this denomination in the work of charity.

The Protestant churches have also come forward to do their share. They have established hospitals, free clinics, and homes for the orphaned.

Nor should the various civil organizations, such as the Society for the Protection of Infants, the Women's Institute, the Antituberculosis Society, and others acting under the impulse of the forward movement of the past fifteen years, be denied due recognition for their part.

The Bureau of Health has carried on this line of work independently in some cases, while in others it has coöperated with the religious and civil institutions, exercising always scrupulous care to avoid competition or conflict of effort. The field is wide and the purpose of all is the same.

Since the beginning of the American occupation the Government has been in contract with the Hospicio de San Jose for the care of the blind, the mentally defective, the orphans, and the aged. This institution was founded by Mr. Francisco Gomez Henriquez in 1782. The expenses of the institution amount to more than ₱100,000 a year, about one-half of which comes from the Bureau of Health, and the remainder is borne partly by the funds of the institution coming down from the original endowment of ₱24,000 by Mr. Henriquez, augmented by donations from individuals, from pay patients, from private charity, and from various other sources. Here old people, whose days of activity are past are taken care of. Now and then it furnishes a last earthly home for some unfortunate American. Among the inmates may be found people of nearly every nationality who have come to the Philippine Islands and been overtaken by ill luck. An American negro who came here in the full strength of his manhood, for the last seven years has been an inmate of this institution. He sits paralyzed in his chair day after day, uncomplaining and appreciative of the kindness which has been accorded him by the Spanish nuns and by the Government for which he fought.

To the St. Paul's Hospital, which is one of the leading charitable organizations of Manila, with a branch in Iloilo, an institution whose influence extends from one end of the Archipelago to the other, the Bureau of Health donates medicines freely.

It maintains by contract a number of orphans in the Looban Orphan Asylum conducted by the Sisters of St. Vincent de Paul, to the founder of which institution, Miss Norton pays the following tribute:

> As a monk founded San Juan de Dios, so a nun, living to-day and humbly serving in this same institution, which is her gift to her country, founded Looban.
>
> She was the owner once of valuable property in the provinces, and after entering the sisterhood of the Concordia, having consecrated her goods to God, with one of those inspirations some spiritual people have, she anticipated a great need long before it was actually felt, and laid out in her charitable heart a dream which she certainly has lived to see far on its way to triumphant realization.

In the Colegio de Santa Isabel, one of the oldest Catholic institutions in Manila, a number of orphans are kept by contract. Some of these orphans have long since passed the birthday which marked their three score and ten. Since they were little children they have been in this institution as orphans.

The Bureau of Health contributes its portion to the Asilo de Jaro near Iloilo. To St. Luke's Hospital it donates medicine for the poor. To the Mary J. Johnston Hospital for women and children it contributes medicines. To the Christian Mission Hospital it also gives medicines. It sends out medicines to missionaries, not much, to be sure, but enough to enable them to help their most deserving poor.

The San Juan de Dios Hospital, the oldest hospital in the Philippine Islands and the one at which all the medical students of the Santo Tomas University receive their clinical training, is not neglected. To this institution the Bureau of Health contributes dressings for the treatment of the poor in the free dispensary of the San Jose Medical College. San Juan de Dios Hospital has always, as Miss Norton has truly said, "been in character more or less of a modern hospital, its spirit so presaging the up-to-date city or State institution, limited, of course, by its capacity, and restricted by its poverty. It has a record of boundless charity—that is, boundless within its limitations!"

The Bureau of Health has been an important factor in aiding the work of the Philippine Islands Antituberculosis Society, especially in its contributions to the San Juan del Monte Tuberculosis Sanitorium, which is located in the Province of Rizal just outside of Manila. This sanitorium is primarily intended for incipient cases. As they become hopeless they are transferred to the San Lazaro Hospital and cared for by the Bureau of Health until the final day comes.

In the city of Manila the Antituberculosis Society operates five dispensaries which receive medicines from the Bureau of Health.

The day-nursery feature of the Children's Welfare Movement recently organized in Manila by the Woman's Club is assisted both by the Municipal Board of Manila and by the Bureau of Health. From the Bureau was detailed for a time a graduate Filipina nurse. From the same source medicines and medical supplies are furnished.

The Bureau of Health maintains on its own account a free-dispensary service at the Philippine General Hospital, the San Lazaro Hospital, and each of the five health stations in the city of Manila. In the provinces it carries on its work through a contract hospital in Iloilo; a general hospital in Cebu, a leper colony at Culion; a general hospital at Butuan, Agusan; a general hospital for the Igorots at Bontoc; a general hospital at Baguio; and the hospital at Bayombong, Nueva Vizcaya, established by the provincial board of that province. It distributes free quinine wherever required, and has recently entered into arrangements with the municipal treasurers of the Islands for the sale of this medicine at a nominal cost.

The poverty question, owing to the mildness of the climate and the richness of the soil, should never become what it is in the older countries, and the chief remedy against poverty—a poverty which demands charity—is better living and better opportunities for labor. With the one the Bureau of Health is intimately concerned, and for the other it is hopeful.

Sanitary supervision has gone beyond the homes of the poor people into the prisons and the jails and made conditions better there. It has even invaded the churches and the schools and improved the sanitation of those places.

It would be impracticable to give an outline of all the projects for the betterment of the needy that are in contemplation or in active operation by the Bureau. The field is so vast that help can be given only where it is most needed.

It is sincerely hoped that the legislators of the future will consider the necessities of the people in making appropriations. Let them lend a helping hand to those who are in poverty and distress; let them provide the opportunities for the people to raise themselves above want, and there will never be the necessity for bread lines and for great charitable organizations with their committees and subcommittees which we find in less favored countries.

ARTESIAN-WELL STATISTICS.

During the six months composing the short fiscal year covered by this report, the artesian-well division of the Bureau of Public Works drilled 55 successful and 5 unsuccessful wells and the provinces drilled 29 wells, making a total of 84 wells and bringing the number of public artesian wells in the Philippines up to 912.

Besides the completed wells, there were 19 deep and 1 jet well reported as being in progress.

Unsuccessful wells were drilled at Albay, Albay; Dauis, Bohol; Dalaguete, Cebu; Iloilo, Iloilo; and San Carlos, Occidental Negros.

The determining factor in making a well unsuccessful is generally the presence of excessive chlorides or other contaminating substances.

The places where these wells have been drilled are as follows:

Agusan: Butuan	1
Albay:	
Albay	1
Malinao	1
Bataan:	
Orion	1
Pilar	8
Batangas:	
Batangas	1
Bauan	4
Bohol: Loon	2
Bulacan:	
Baliuag	1
Bulacan	1
Calumpit	1
Malolos	1
Meycauayan	1
Polo	2
San Rafael	1
Cavite:	
Rosario	4
San Francisco de Malabon	2
Cebu: Dalaguete	1
Iloilo: Iloilo	4
Laguna:	
Lumban	2
Siniloan	3
Manila: (ice plant)	1
Mindoro:	
Concepcion	2
Naujan	4
Mountain: Tagudin	2
Occidental Negros:	
Murcia	1
San Carlos	2
Palawan: Iwahig penal colony	1
Pampanga: Mabalacat	1
Pangasinan:	
Asingan	1
Dagupan	2
Lingayen	1
Santo Tomás	1
Rizal:	
Antipolo	3
Malabon	4
Morong	1
Navotas	1
Pililla	1
Samar: Villareal	1
Sorsogon: Casiguran	2
Tarlac:	
Anac	2
Gerona	1
La Paz	3
Paniqui	2
Tarlac	1
Total	84

By provinces these new wells are distributed as follows:

Agusan	1	Mindoro	6
Albay	2	Mountain Province	2
Bataan	9	Occidental Negros	3
Batangas	5	Palawan	1
Bohol	2	Pampanga	1
Bulacan	8	Pangasinan	5
Cavite	6	Rizal	10
Cebu	1	Samar	1
Iloilo	4	Sorsogon	2
Laguna	5	Tarlac	9
Manila	1	Total	84

A most disquieting condition has come to light within the past year. Artesian wells that were furnishing practically sterile water are now frequently found to be infected with amœbae and to have a high bacterial count. It seems probable that much of this infection has been caused by "priming" the pumps with contaminated water. This matter is now receiving active attention. In some instances it has been possible to free them of infection by the use of permanganate of potassium or calcium hypochlorite and then actively pumping the wells for some days.

ADMINISTRATION OF THE FOOD AND DRUGS ACT.

In the practical administration of the Food and Drugs Act, the Director of Health is advised by a Board of Food and Drug Inspection appointed by the Governor-General in Executive Order No. 7 dated February 11, 1911. The text of this order is as follows:

> For the purpose of aiding in carrying out the provisions of the Food and Drugs Act, the Assistant Director of Health, the food and drug chemist of the Bureau of Science, the appraiser of the port of the Bureau of Customs at Manila, and the chief city internal-revenue agent, Bureau of Internal Revenue, are appointed members of a board to be known as the Board of Food and Drug Inspection.
>
> The board is empowered to give hearings on matters concerning the administration of the Food and Drugs Act; it shall hear protests and appeals from decisions and rulings made under Act Numbered Sixteen hundred and fifty-five, under section four of the Food and Drugs Act; it shall investigate processes of food and drugs manufacture and shall submit a report recommending food and drug standards for adoption under the Food and Drugs Act.
>
> The board shall further have such functions, properly within the scope of the administration of the Food and Drugs Act, as may be assigned to it by the Director of Health.
>
> The members of the board hereby appointed shall represent the Directors of their respective Bureaus, and the Assistant Director of Health shall act

as chairman. The decisions of the board shall be advisory to the Director of Health, and shall become final upon approval by the Secretary of the Interior.

The organization of the board was completed by the election of Mr. George H. Tilbury, chief internal-revenue agent for the city of Manila, as secretary.

Regular meetings are held on the second and fourth Friday afternoons of each month and special meetings are called when the amount of business justifies them.

The fiscal year just closed, though a short one, occasioned by legislative change making it to conform with the calendar year, has been a very busy period for the board.

There is never a meeting at which some protest is not heard, or a general hearing extended to those who may be interested in some contemplated action of the board affecting the business in which they are engaged.

Beginning with July 11, 1913, the date of the first regular meeting of the board for the period covered by this report, the subjects of aërated waters and bottled drinks were taken up and later a hearing was given to the manufacturers with special reference as to what constituted proper labeling and prohibited ingredients.

The questions of the use of saccharin and the different coloring substances have also engaged the attention of the board.

In brief, there has been a general inventory taken of the operations affected by the administraton of the Food and Drugs Act and an effort made to bring them into closer conformity to the law.

Two important questions are now receiving attention—the classification of eggs by inspection as to their freshness, which process will eliminate by confiscation and destruction all that are decayed, and the restriction of the importation of skimmed milk.

In Hongkong an ordinance has been passed requiring that skimmed milk be labeled "Not suitable for feeding babies under one year of age." This office has recommended that a heavy tax be placed upon the sale of skimmed milk.

The necessity for some action is as great here if not greater than it is in Hongkong, but on account of the various dialects spoken in the Philippines, the remedy adopted by the British colony would not be effective in the Philippine Islands.

The following statement shows the character of some of the work that has been accomplished:

Articles.	Examined.	Admitted.	Rejected.	
			Adulterated or misbranded.	Insufficient labeling.
Butter	2	2		
Cheese	14	10	4	
Coloring matter	7	1	6	
Fish, canned	8	2	2	4
Essences and extracts	4	2	2	
Fruits, preserved	6	2		4
Lemon squash	1	1		
Meats, canned	2	2		
Medicines and drugs	14	1	1	12
Milk, canned	8	8		
Salad oil	1	1		
Sausage	1	1		
Sardines	3	2		1
Tea	21	13	3	5
Vegetables, canned	4			4
Vermicelli	2			2
Miscellaneous	4	2		2
Total	102	50	18	34

The foregoing list does not include samples of local manufacture and specimens of water.

MANILA FREE DISPENSARIES.

The Bureau of Health maintains a free dispensary service at the Philippine General Hospital, the San Lazaro Hospital, and each of the five health stations and contributes medicines to St. Luke's Hospital, Mary J. Johnston Hospital, Christian Hospital, San Juan de Dios Hospital, and St. Paul's Hospital.

The dispensaries not directly under the Bureau have always made a small charge for medicines when the patients were able to pay. Until April 1 of last year the Government dispensaries were in the strictest sense free. No charge whatever was made, but as such a system opened the way for abuses it was decided to collect a nominal fee from all who were able to pay except in the case of Government employees. The dispensaries of the Bureau of Health are all well patronized. The pharmacy located at the central office and the pharmacy of the Philippine General Hospital fill prescriptions written for the poor by municipal physicians and medical inspectors, and by other physicians when they are marked as poor cases. The statistics of these pharmacies will be found in another part of this report.

DENTAL CLINICS.

In addition to the other free dental clinics conducted by Doctor Ottofy at several places in the city, a clinic on a more extensive scale has been established at the Philippine General Hospital under his supervision. A small charge is made to cover the cost of material and the current expenses in cases involving the construction of artificial dentures.

This clinic will afford an opportunity for the practical work which will be needed by the College of Dentistry of the University of the Philippines as soon as the classes are opened. The dental clinic at the Philippine General Hospital is a regular part and feature of the dispensary service and is operated under the same rules and regulations as other departments of the clinical service.

CAVITE NAVAL CLINIC.

The charity medical work in the Philippine Islands is greatly assisted by the aid which is extended by the various United States organizations that are stationed in different parts of the Islands. For instance, at Cavite the United States Navy maintains a free out-patient clinic. At this institution 4,953 cases were treated for the year ended June 30, 1913.

NECESSITY FOR BUILDING SITES FOR THE POOR.

This office can but reiterate the great need for filling in the lowlands of Manila and the many other towns in the Philippine Islands, that are built upon low tidal flats or are otherwise insanitary. That progress along these lines, when upheld by public support, is possible even within the financial means available has been amply demonstrated by the many sanitary barrios which have been built in Manila during the past five years. It has been the experience of this office that the transfer of the poor classes of the population from insanitary ground areas to elevated sanitary building sites soon results in a population that takes pride in its surroundings, and makes for cleaner domestic habits, with the result that there is a marked improvement in the health of that part of the population.

SHIP SANITATION.

Sanitation on interisland vessels has received much attention from the Quarantine Service as well as from the Bureau of Health during the past ten years, but after the ships have been made reasonably sanitary unless an expensive system of inspection is maintained they almost immediately revert to their former condition. During the past year considerable assistance has been received through the promulgation by the Collector of Customs of a set of marine regulations which impose penalties and fines for failure to keep vessels in good sanitary condition. A chemical and biological examination was made of the drinking water found on board and almost without exception all water was found to be badly contaminated. The construction of many of the ships was so faulty that tanks could not be properly cleansed. This condition is now being gradually improved by having structural changes made in the vessels and by the owners installing therein, in many instances, a distilling apparatus. It is hoped that with the coöperation of the Bureau of Customs, which now, in addition to its former duties, exercises the functions of the former Bureau of Navigation, and with the assistance of the Quarantine Service, substantial progress in this matter can now be made.

CEMETERIES IN MANILA.

Cemeteries in Manila come under the provisions of the Revised Ordinances, which were formerly a part of the Sanitary Code.

During the period covered by this report one new cemetery has been opened, that established by the Roman Catholic Church at La Loma, near Cementerio del Norte, to take the place of the Binondo Cemetery. The Roman Catholic Church maintains four other cemeteries in Manila, located in Santa Ana, Pandacan, Singalong, and Sampaloc (Balicbalic). The Filipino Independent Church has a cemetery in Pandacan; the Chinese colony has its own cemetery near the Cementerio del Norte, which is a municipal cemetery conducted under the administrative jurisdiction of the department of sanitation and transportation. Cementerio del Norte is one of the most beautiful places in the city of Manila. The unoccupied ground is used as a nursery for the cultivation of ornamental trees and shrubs.

PROVINCIAL CEMETERIES.

Provincial cemeteries come under the provisions of Act No. 1458 and the cemetery regulations of the Bureau of Health. The following statement will show the number of cemeteries that have been acted upon by the Bureau in the short fiscal year:

Class.	Roman Catholic.	Filipino Independent.	Protestant.	Municipal.	Private.	Total.
New cemeteries approved	14	5	4	37	6	66
Old cemeteries approved	20	1		11	2	34
Old cemeteries reopened	12					12
Old cemeteries closed	4					4
Enlargement approved				1		1
Total	50	6	4	49	8	117

THE TOMB OF THE RAT—WHAT BECOMES OF THE CARCASSES OF RATS DYING NATURAL DEATHS?

Observations made since the rat-destroying campaign for the prevention of plague was begun in June, 1912, show that there is in all probability a heavy rat mortality which is as yet unexplained. It has been estimated that in the average city there is at least one rat per inhabitant, but in order to err on the safe side let it be supposed that there is only one rat for every two inhabitants. The average life of a rat is said to be approximately five years. In round numbers the population of Manila and its environs is about 300,000 persons. On the foregoing basis there would be a natural mortality of 150,000 rats for each five-year period, 30,000 rats per year, 2,500 per month, or an average daily mortality of 82 rats. In Manila there is a fairly thorough daily collection of garbage, refuse, and street sweepings, and all of this material is hauled either to the city dumps or to the public crematory. There is practically no other way in the city of Manila to dispose of refuse or garbage. Stoves are practically unknown and on account of the high price of fuel, fires are of the most primitive nature and could not readily be used for burning so large an object as a rat, so that at least the majority of the dead rats would naturally find their way into the garbage or refuse cans or be found in street or yard refuse. Employees at the crematory have repeatedly reported that it is very rare to find dead rats during the manipulations which take place. The employees on the city dumps have made similar statements. In order to test the accuracy of this information a sanitary inspector of the Bureau of Health was stationed at the crematory for a period of a month and frequent observations were made on the city dumps. The sanitary inspector at the crematory saw only one dead rat during his period of observation. It is quite possible, of course, that a certain percentage of rats die in inaccessible places, but owing to the rapid decomposition which takes place in a tropical climate, the odors which would arise would soon attract attention. The records of the Bureau show that comparatively few annoyances of this kind are reported or discovered. As further evidence that no considerable number of rats die in out of the way places, it has been the experience of the gangs of rat destroyers, amounting sometimes to over 300 men, very seldom to find a dead rat that did not die of a poison placed for it or from some other readily explainable cause. These rat gangs clean block after block of houses and yards in a most systematic manner, yet it is very exceptional for them to find a dead rat. Live rats are frequently encountered in these operations. The interesting question now is, What becomes of these 2,500 rats that presumably die each month in Manila from natural causes? It has been suggested that they die in the sewers, but this is improbable because the sanitary sewer system of Manila is entirely closed by traps and is therefore not accessible to rats, and observations made at the mouths of the storm-water sewers do not show that any considerable number of rats are swept into the bay. In addition, most of the storm sewers are flushed at least once and sometimes twice a day by the tide, so that they would not afford a favorable harboring place for rats. It is thought that perhaps dead rats may have been eaten by other rats or by cats or the innumerable dogs that are to be found in the city of Manila. If they were eaten by other rats, it would seem that skeletons should frequently be found, but this is not the case. Extensive inquiry indicates that it is not customary for either cats or dogs to eat rats that have died from natural causes.

From the foregoing, it would appear that many hundreds of rats presumably disappear each month in Manila by natural means, the exact nature of which if it were known might prove of considerable value in the solution of the rat destroying problem.

AMBULANCE SERVICE.

The ambulance service of the Bureau of Health has now been completely motorized, the use of horse-drawn ambulances having been discontinued during the year. The equipment now consists of four electric ambulances and one high-power gasoline machine. The electric ambulances continue to give excellent satisfaction, especially on account of their noiselessness in operation, the power transmission being by worm gear instead of the ordinary chain. In view of the fact, however, that their radius of activity without recharging is rather limited and that the Bureau frequently has calls for ambulance service to nearby provinces, it was deemed advisable to secure a gasoline-driven motor. The manufacturers of the De Dion Bouton motor cars secured the contract and have furnished an ambulance which is capable of making a speed of at least 60 miles an hour and of climbing any grade passable for vehicles. It is of modern French construction, and not only serves the purpose of an ambulance but of a small hospital on wheels as well. A lavatory, water sterilizing apparatus, formaldehyde disinfector, surgical instruments, upper and lower berths, table, etc., are included in its equipment. The improved service in connection with the transfer of dangerous communicable diseases to the San Lazaro Hospital has been of great advantage in conducting this branch of the work. All ambulances are maintained at a central station located at the Philippine General Hospital and convenient to the machine and electrical departments of the Bureau of Science so that the charging and repairs can be readily attended to. The chauffeurs and other employees connected with this service are all Filipinos.

SANITATION AT ANTIPOLO.

The question of good sanitation at Antipolo assumes very large proportions on account of the annual pilgrimage which takes place to the shrine of Nuestra Señora de la Paz y Buen Viaje and which lasts for a number of weeks. Sometimes there are as many as 10,000 persons present in one day, and as the sanitary facilities of Antipolo are meager at best, these pilgrimages offer an excellent opportunity for the spread of intestinal and other diseases. For years this Bureau has been attempting to improve sanitary conditions at that place. It was not until recently, however, that anything of a permanent nature has been accomplished. The municipality of Antipolo has obtained a loan from the Insular Government and has enacted an ordinance which will provide for the collection of refuse and the disposal of human excrement in a proper manner. The ordinance is the same as the model ordinance recommended in the bulletin entitled "The Disposal of Human Wastes in the Provinces," and its essential features are, that those who desire to have a sanitary pail on their premises pay ₱30 per annum, and those who use the public toilets, of which there are a sufficient number to make them of easy access, pay ₱4 per annum. Unfortunately, however, the effect of the ordinance has been greatly weakened because the council later enacted an amendment which provides that it shall be in force only thirteen weeks each year.

ANTIMOSQUITO MEASURES IN MANILA.

The work of suppressing mosquitoes in the city of Manila, which has heretofore been done directly under the supervision of the Bureau of Health, was transferred to the Municipal Board and is now directly supervised by the chief of the department of sanitation and transportation. On account of the fact that it was demonstrated that the mosquitoes of Manila could be reduced to insignificant numbers and as the work was solely for the benefit of the residents of Manila, it was thought that the expense of conducting this campaign should be borne by the municipality rather than by the Insular Government.

LEGISLATION.

The following Acts and public resolutions affecting health matters were passed by the Philippine Commission and by the Philippine Legislature during the period covered by this report:

Act No. 2283, among other things, contains the following paragraph:

> (*d*) For the development and enlargement of hospitals already established and providing for the disposal of sewage and waste in the Provinces

of Agusan, Nueva Vizcaya, the Mountain Province, and the Moro Province, to be allotted by the Secretary of the Interior on recommendation of the Dircetor of Health, thirty thousand pesos.

Act No. 2302.—This Act appropriates the sum of ₱7,000 for the maintenance of 20 Government students of the College of Veterinary Science of the University of the Philippines.

Act No. 2303.—This Act amends section 6 of Act No. 1760 permitting provincial boards to intervene in the prevention of the spread of dangerous communicable animal diseases in the Philippine Islands.

PUBLIC RESOLUTIONS.

Commission Resolution No. 41.—This resolution divides the district composed of Albay and Ambos Camarines into two districts and provides for the appointment of a health officer for each.

Commission Resolution No. 50.—This resolution places Ilocos Sur and Ilocos Norte in separate districts and provides for the employment of a health officer for each district.

ORDINANCES OF THE CITY OF MANILA.

During the period covered by this report there were four important ordinances passed affecting sanitation. Two of them made appropriations for public-health purposes:

Ordinance No. 204.—By the terms of this ordinance ₱219,700 were appropriated for public works and permanent improvements of a sanitary nature as follows:

BUILDINGS.

For public sanitary laundry, bath, and toilet in the district of Tondo, twelve thousand pesos.

For public market in Santa Mesa (site and building), ten thousand pesos.

For public market in San Lazaro (removal of Gagalañgin Market to north side of San Lazaro), three thousand four hundred pesos.

For gas testing station (building and equipment), six thousand pesos.

For pavilion for flower market, three hundred pesos.

For alteration of building in rear of city hall for additional accommodation of sewer and waterworks department, three thousand pesos.

EQUIPMENT.

For purchase or manufacture of three thousand garbage receptacles, fifteen thousand pesos.

For motor truck for pail system, ten thousand pesos.

SANITARY IMPROVEMENT.

For opening of sanitary barrios, improving those already existing, and making other sanitary improvements in the city of Manila: *Provided,* That all expenditures under this head shall have the prior approval of the Director of Health and of the city engineer, one hundred thousand pesos.

For sanitary improvements and public works in the barrios of Dagupan, Antonio Rivera, Angustias, Licheros, and Gagalañgin, sixty thousand pesos.

Ordinance No. 205.—This ordinance makes an appropriation of ₱25,500 for the department of sanitation and transportation to be used for the extermination of rats and mosquitoes, ₱7,500 being for the extermination of rats and ₱18,000 being for the extermination of mosquitoes.

Ordinance No. 208.—This ordinance amends chapter 71 of the Revised Ordinances of the City of Manila relating to garbage and rubbish.

Pursuant to this ordinance the department of sanitation and transportation has contracted for a number of sanitary garbage cans to be rented to property owners. A provision is made that it shall be illegal to rent a house not equipped with proper receptacles for garbage and rubbish.

Ordinance No. 210.—This ordinance provides for the sanitary control of cigar, cigarette, and tobacco factories. It embodies the regulations issued by the Director of Health some time ago for the sanitary control of factories of this class in the provinces.

GEOGRAPHICAL DISTRIBUTION OF DISEASES.

For the purpose of making a study of the geographical distribution of diseases in the Philippine Islands the following circular has been sent to all district health officers:

> It is desired to obtain more accurate information regarding the geographical distribution of diseases in the Philippines and especially of a class of diseases that are not at present systematically reported, viz, yaws, rabies, cancer, goitre, hookworm, skin diseases, filariasis, etc.
>
> It is requested that, if it is known or believed that any disease is unusually prevalent in a certain locality, a thorough study and investigation be made of it and a report rendered giving all possible information regarding it. This report should include previous history, theory as to cause, rapidity of spread, number of cases, duration of the disease in the locality, and any other data to be obtained regarding it.
>
> It is requested that an investigation and report be made at the present time and that a similar report be made of any other instances which may come to light in the future. It is realized that the majority of district health officers are not supplied with the necessary apparatus to make extensive bacteriological or pathological tests, however the clinical evidence may be submitted in such instances.

The information obtained so far is so meager and unsatisfactory that no definite conclusions can be drawn. Apparently beriberi is confined almost entirely to sections in which polished rice is the staple article of diet. In Cebu, for instance, where corn is the staple article of diet, there is no beriberi among permanent residents. The Province of Cebu also furnishes over half the lepers of the Philippines, whereas it has only about a tenth of the population. In other words, in Cebu there is 1 leper for every 200 of the population, and in the remainder of the Archipelago there is 1 leper among every 1,800 of the population.

An examination of the prisoners at Bilibid Prison shows a wide variation of filarial infection. It ranges from 2 per cent in Pampanga to 35 per cent in Leyte. A table showing the percentages is given under the head of "Filariasis."

Blood specimens are still being selected for laboratory examination for typhoid and these show that the disease occurs throughout the Archipelago.

PHYSICAL CONDITION OF LABORERS SENT TO HAWAII.

Dr. A. M. Saleeby, who is the Manila medical examiner for the Hawaiian Sugar Planters Association, reports that among 10,000 laborers who were examined 64 per cent were passed; that the largest number of rejections—that is, about 26 per cent—were due to beriberi. The second cause was that of heart disease. He reported 19 cases of backward dislocation of the elbow. This he concludes was caused by improper manipulation during childhood. The examination for intestinal parasites is now made upon their arrival in Honolulu instead of in the Philippines, and therefore no reports of this condition are available at present.

LACK OF COURTESY AMONG PATIENTS IN GOVERNMENT HOSPITALS.

Several complaints having been made charging lack of courtesy on the part of Civil Government employees. His Excellency the Governor-General issued the following order:

THE GOVERNMENT OF THE PHILIPPINE ISLANDS,
EXECUTIVE BUREAU.

MANILA, *July 25, 1913.*

"EXECUTIVE ORDER
No. 55.

"It has been brought to my attention that employees of the Civil Government believe that the privilege which they are given of having free service at the Government hospitals entitles them to be rude and overbearing to the doctors employed in those institutions. It is true that under the law officials and employees of the Government may get free service at the hospitals, and doctors are employed by the Government whose duty it is to give it to them, but there is nothing that compels the doctors to remain in a service that is disagreeable to them as many of them can make a great deal more money in private practice than they can on a salary basis with the Government. Employees are cautioned that doctors, nurses and officials of the Government hospitals should be treated with civility and respect; that they are performing a great public service in curing infirmities and in rendering medical and surgical aid to the people; that they relieve untold amounts of suffering; that after a physician has been here a few years and learned the requirements of his position his place is difficult to fill without suffering to untold hundreds, and trouble and expense to the Government.

"I have sent a copy of this Executive Order to each of the doctors employed in the Insular Government with the request that he furnish me with the names of any official or employee who fails to recognize the courtesy due to a man in his position, and all such complaints that are made will be investigated and such administrative remedies applied as may seem necessary.

"W. CAMERON FORBES, *Governor-General.*"

It is requested that all violations of this order which come to the notice of any physician or employee in the employ of the Bureau of Health be promptly reported to this office for submission to His Excellency the Governor-General.

ARRANGEMENT OF CENTRAL OFFICE LIBRARY.

The classification and indexing of the many health publications that are received from health organizations throughout the world has finally been completed and new additions are now placed immediately after arrival. This library is housed in the office of the Director of Health and is available to anyone who may have use for it. The literature issued on health matters has grown by rapid strides during the past few years and a careful study of it is of much advantage in applying new methods in the Philippine Islands.

PHILIPPINE GENERAL HOSPITAL.

The Philippine General Hospital is easily one of the most modern institutions in the Eastern Hemisphere and is now so completely equipped that extraordinary medical facilities, which were heretofore only to be had in Europe or in the larger cities of the United States, are now available in Manila. The institution is fully meeting the purposes for which it was founded, namely, the relief of suffering and the furnishing of adequate facilities for teaching the students of the medical schools. The cumulative records and statistics are proving of inestimable value in the study of disease in the Philippine Islands.

The institution is of constantly increasing value in relieving suffering among the poor and afflicted, not only in Manila, but also among those who reside in the provinces. The arrangements which have been made by which the Government pays the transportation expenses of indigent poor from place of residence to the Philippine General Hospital has resulted in many poor sufferers being cured of their ailments and returned to their homes.

From time to time there has been criticism of the Hospital. This usually takes the form that the Bureau of Health and the College of Medicine and Surgery have concurrent jurisdiction and therefore there is divided authority with resulting lack of efficiency. Such a claim is unfounded, because the law clearly fixes the responsibility upon the Bureau of Health, and all persons who render service in that institution are subject to the director of the hospital, who is the Director of Health.

The new addition to the dispensary building, Philippine General Hospital, is rapidly nearing completion and should be in use during the next few months. The demand for outpatient treatment at the Philippine General Hospital has been so great that the original dispensary building was too small to carry on the work properly. The capacity of the dispensary will be increased over 100 per cent by the new building. The second story is arranged for additional quarters for internes, who up to the present time have been very much crowded in their sleeping arrangements.

POSTGRADUATE FACILITIES AT THE PHILIPPINE GENERAL HOSPITAL.

The facilities of the Philippine General Hospital have been made available to all physicians from the provinces who desire to come to Manila to acquaint themselves with the more recent developments in medicine. Many doctors have taken advantage of this offer and the good which has been accomplished in the dissemination of useful knowledge can scarcely be estimated. In the event that physicians are willing to serve as regular internes, they are given quarters, subsistence and laundry free of charge.

PROVINCIAL HOSPITALS.

In order to secure hospitals in the provincial towns it has heretofore been necessary for the Bureau of Health to take the initiative and supply most of the sinews of war.

This order of things is now, happily, changing. The district health officer for the Province of Albay has succeeded in arousing the interest of the provincial officials in this subject and it is expected that a provincial hospital will be opened in the near future. A training school for nurses may be conducted in connection with this hospital.

The Province of Ambos Camarines has fallen into line and the district health officer reports that the prospects for the establishment of a provincial hospital are very encouraging.

At Romblon and at Calapan there are prospects that similar results may be obtained.

This movement is a step in the right direction as it is highly desirable that all the provinces should have the advantages of a hospital and it is manifestly impossible for the Bureau to build and maintain these institutions from its own appropriation.

The attempt of some of the provinces to rely upon themselves for sanitary improvements and hospitals is very gratifying and it is hoped that the movement will become widespread.

THE PHILIPPINE ISLANDS ANTITUBERCULOSIS SOCIETY.

The Philippine Islands Antituberculosis Society was organized July 29, 1910, and a branch society was organized in Iloilo. At the meeting of the Far Eastern Association of Tropical Medicine held in Manila during March of the same year the subject of tuberculosis received considerable attention. It was the concensus of opinion among the members of the association that the best method of dealing with the problem was through a special organization. The society as organized was incorporated under the laws of the Philippine Islands and is controlled by a council of eleven which is elected at annual meetings of the active members of the organization. The officers, who are elective, are a president, two vice-presidents, a secretary, and a treasurer. Under the provisions of its articles of incorporation the association is authorized to form branches of the society in any provincial capital and to appoint a director, a secretary, and a treasurer.

In formulating a plan of campaign it was agreed that the most attention should be given to educational work; that is, to teach the people what tuberculosis is and how the disease may be prevented, to safeguard the youth of the country and to prepare the way for a stronger generation in the future, to teach those who have not yet contracted the disease that they could avoid it by hygienic living.

Secondarily to the educational work was the task of establishing hospitals and sanatoria for those who had become sick. This part of the plan was effected by the taking over of the San Juan del Monte Tuberculosis Sanatorium situated just outside of Manila and by the establishment of five free clinics and dispensaries in the city.

It was proposed to raise funds through dues for membership, from private donation, from the sale of tuberculosis stamps, and from legislative appropriation. The membership fee was fixed at ₱2 a year for ordinary membership and ₱50 for life membership. The first person to subscribe as a life member was the Honorable J. M. Dickinson, then Secretary of War.

Mrs. Martin Egan was elected president and continued in that position until her departure from the Islands. Soon after her election she visited the United States and prevailed upon the late J. Pierpont Morgan to make an annual contribution to the work of the society. From this contribution was paid the salary of a physician appointed to take medical charge of the work. Unfortunately Mr. Morgan made no provision in his will for the continuance of the allowance after his death.

Mrs. Egan is no longer in the Islands. Several of the members of the council have resigned on account of leaving for the United States, and the remaining members have held no meeting. Doctor Reed, the physician in charge of the medical work, will soon sever his connection with the society, after which there will be no one to direct officially the work of the society. The Legislature has made an appropriation of ₱50,000, and some arrangements should be made for the proper expenditure of this fund. The society should be reorganized or the work placed under charge of a Government bureau.

QUININE DISTRIBUTION.

It is estimated that malarial fever in the Philippine Islands is responsible for at least 25,000 deaths per annum. Another 100,000 persons are ill from this disease and are unable to perform work for varying periods of time. It has been most difficult to obtain quinine in the more remote parts of the Philippines and particularly at a price that is within the means of the average resident to pay. With the approval of His Excellency the Governor-General, arrangements have now been completed for placing quinine on sale at the office of every municipal and township treasurer throughout the Philippine Islands. This quinine is sold for 1½ centavos for each 0.3 gram (5 grains) tablet. For those who are unable to purchase quinine even at this reduced rate, arrangements have been made for furnishing quinine free of charge.

The following circular sets forth the plan that has been put into operation:

THE GOVERNMENT OF THE PHILIPPINE ISLANDS,
EXECUTIVE BUREAU.

MANILA, *December 4, 1914.*

PROVINCIAL CIRCULAR NO. 53.

Subject: Quinine, sale of, to public.

1. The number of deaths in the Philippine Islands during the past four years, with diagnosis of malaria, has averaged 27,071 annually.

2. The Bureau of Health has for years been trying to evolve a plan whereby this excessive mortality might be reduced. That it can be reduced very materially and thousands of lives saved every year, by maintaining a supply of quinine in every municipality in the Islands, to be sold to all applicants at a low price, there is no doubt.

3. The Director of Health has urged that supplies of quinine be so maintained, to be sold through the agency of the provincial and municipal governments and the plan for so doing, as hereinafter outlined, has received

the approval of the Governor-General, with his earnest wish that it be carried out by all concerned in a manner that will effectually accomplish the ends desired.

4. The plan involves no expense to the provinces or municipalities for the quinine supplied. It does involve, on the part of each province, the creation of a small reimbursable appropriation from which payments for quinine, to the Bureau of Health, will be made, and to which the proceeds of sales to the public will accrue. The amount necessary for appropriation can be approximately determined when it is stated that each province will be asked to maintain a stock of at least 1,000 tablets per municipality and that the price of the tablets to the province will not exceed ₱13 per 1,000 at present market prices.

5. The entire plan may be briefly outlined as follows:

(*a*) The Bureau of Health will, in the near future, ship a supply of 0.3-gram quinine tablets to each provincial treasurer, such supply being based upon the number of municipalities of his province multiplied by one thousand.

(*b*) The province will pay the Bureau of Health for quinine supplied as soon as received, from the reimbursable appropriation created for that purpose.

(*c*) The provincial treasurer will, upon being furnished a stock of quinine, supply each deputy treasurer (in the municipalities) with a stock of from 500 to 1,000 tablets, according to the size and needs of the municipality where the deputy is stationed.

(*d*) The deputy treasurers will sell, to any applicant therefor, quinine (0.3-gram tablets) at a uniform price of ₱0.015 (one and one-half centavos) per tablet.

(*e*) The fact that quinine will be kept on sale in each municipality at the office of the municipal treasurer will be kept advertised by notices posted in each municipal building and in each barrio, in English, Spanish, and the local dialect. Every effort will be made to give the information the widest dissemination possible. The *price* at which it will be sold will be stated in these notices.

(*f*) Provincial treasurers will make requisition upon the Bureau of Health for further supplies of quinine, as needed, in sufficient quantities to prevent their reserve stock from becoming exhausted.

Deputy treasurers will likewise so make requisitions upon the provincial treasurer for further supplies that a stock of tablets, sufficient to meet ordinary demands, will be available at all times.

An ample allowance of time in both cases will be made for possible delays in transportation.

(*g*) The profits derived from sales of quinine will accrue to the reimbursable appropriation hereinbefore spoken of and any losses will be a charge thereto. Expenses incident to handling and selling may, likewise, be charged to this appropriation.

6. The general accounting features involved in the plan above outlined have received the approval of the Insular Auditor. More detailed instructions will follow from his office. That the money and property accountability which the work entails may be as simple as possible, the share of the municipalities therein, as will be observed from the foregoing, is to be conducted by the municipal treasurers in their capacities as deputies of the provincial treasurers. It is expected, however, that municipal

officials and employees will lend them every assistance necessary to the end that the work may not too greatly interfere with their regular duties.

7. In view of the humanitarian purpose involved and the fact that delay in instituting alleviating measures would, doubtless, mean further suffering and a loss of life which might otherwise be saved, it has been thought well to proceed in this matter without awaiting advices from provincial boards as to whether they would authorize the creation of the small reimbursable appropriations necessary to finance the transactions contemplated. Such authorization, the Governor-General believes, may be confidently counted upon, as well as the cordial coöperation of all concerned to make the work of effectual benefit to those whose deprivations and sufferings it is desired to reach and alleviate.

8. Quarterly, at the end of March, June, September, and December of each year, provincial treasurers will render to the Director of Health, for his administrative information, a statement in the following form:

PROVINCE OF AGUSAN.

Statement of quinine received, distributed, and on hand for the quarter ended March 31, 1914.

	Tablets.
On hand beginning of quarter	3,000
Received since	2,000
Total	5,000
Distributed to municipalities, as per list below	3,500
On hand at close of quarter	1,500

Distributions were made to municipalities as follows:

	Tablets.
Butuan	2,000
Cabadbaran	500
Talacogon	1,000
Total	3,500

9. Quinine will be supplied to the provinces by the Bureau of Health in tin boxes containing 500 tablets. Provincial treasurers should supply same to their deputies in box lots. For the purposes of the administrative report required by paragraph 8, distribution can be considered to have been made when those *box* quantities are placed in the deputies' hands for sale.

10. Provincial treasurers will transmit paragraphs 1 to 6 hereof to the municipalities, excepting Cebu and Iloilo, to which it will not be made applicable, in accordance with the provisions of Provincial Circular No. 5.

For the Executive Secretary.

(Sgd.) W. A. RANDALL,
Special Agent.

To all PROVINCIAL GOVERNORS.
PROVINCIAL TREASURERS.

TYPHOID VACCINATION.

The great reduction which has been brought about in the United States, German, and British armies by the use of anti-typhoid vaccine is considered ample evidence for the more general employment of this measure in combating typhoid fever. The nurses at the Philippine General Hospital in the past have frequently been attacked by typhoid fever. General vaccination was undertaken among them about a year ago but was not made compulsory. Since that time the records of the hospital show that not a single nurse was attacked by typhoid who was vaccinated and that one was attacked by the disease who was not vaccinated.

All private individuals who have applied for typhoid vaccination have been vaccinated at the Philippine General Hospital free of charge, and in so far as the appropriations of the Bureau will permit it is the intention to give vaccination against typhoid to all persons who may apply for it.

DRY VACCINE AGAINST SMALLPOX.

On September 17, 1913, Doctor Ruediger, chief of the serum laboratory of the Bureau of Science, sent ten tubes of dried vaccine virus to the Director of Health asking that the virus be tested at intervals of two weeks or a month and stating that a series of tests would be made in the Bureau of Science for the purpose of comparison.

Three tubes each were sent to the medical inspectors of Station J and Station L and Dr. Miriam E. Griffin, medical inspector of schools, with the following instructions:

> There are inclosed herewith three tubes of dried vaccine virus. You are directed to use one tube on unvaccinated children, noting particularly the date of vaccination, of the appearance of pustules and finally whether the scar indicates a successful take or not.
>
> The second tube is to be used in the same manner two weeks later, and the third tube two weeks after the second tube.
>
> The dried vaccine must be mixed with sterile water to the consistency of ordinary vaccine, and this procedure must be carried out before the vaccine is applied.
>
> A detailed report is to be submitted to this office at the conclusion of the last series of vaccinations, in order that intelligent deductions may be made from the results obtained.

The medical inspector of Station L reported on October 30 on three series of vaccinations of 15 each two weeks apart, as follows:

> I have the honor to forward reports on three series of vaccinations performed pursuant to and in accordance with your instruction of September 19, 1913, and to state that in every case the result was positive.
>
> So far as I am able to determine, the lesions and symptoms caused by the virus were typical in character and not due to bacterial infection.

Under date of December 2, 1913, the medical inspector of Station J made the following report:

Next attached is report of dry vaccine virus sent to this station September 19, 1913.

The first tube of this virus was used November 4, 1913, inspected November 11, with a positive result in every case. As you will note from the report two more inspections were made of this group of cases.

The second tube was prepared in the same manner and used November 11, 1913. Inspected one week later, November 18, 1913, with a negative result in every case.

The third tube was prepared in the same manner and used November 21, 1913. Inspected ten days later, December 1, 1913, with a result of 9 positive and 6 negative. You will note 5 of this group were the same cases reported in the second group. Four of these second vaccinations were positive and one negative.

In every positive case the vesicle was well formed, round, containing its contents perfectly and surrounded by a nice areola. Not a single case showed excessive redness and swelling.

This report was also based on three series of 15 each, 2 of the tests having been made November 11, 1913, and the third on November 21, 1913.

On the three tubes sent to Doctor Griffin the following report was received:

First tube, used October 24; 9 children vaccinated; 6 negative, 2 positive, 1 injured and no report possible.

Second tube, used November 6; 14 children vaccinated; 9 positive, 5 negative.

Third tube, used November 21; 13 children vaccinated; 10 positive, 3 negative. Total vaccinated, 36; positive, 21, or 58.33 per cent; negative, 14, or 38.89 per cent; no report, 1, or 2.78 per cent.

The question of an efficient dry vaccine is an important one for the Philippines, because in this climate the ordinary glycerinized vaccine will not always remain potent for a greater period than one week at ordinary temperature.

This means that many remote parts of the Islands cannot be vaccinated successfully and that much of the vaccination that has been done in the past was not efficacious.

These reports would indicate that the problem is nearing solution. The vaccine that was used before it was two months old gave positive results in every case. One bottle of the vaccine sent to Station J gave negative results, but this was evidently due to an error in manufacture, inasmuch as the contents were odorless, while the contents of the other bottles were far from this state.

PROVINCIAL SANITARY CODE.

A committee was appointed several years ago to prepare a draft of a provincial sanitary code along the lines of the Sanitary Code of the city of Manila. The work of this committee has necessarily been slow—slow, because they had their regular duties to perform; and slow, because of the difficulty of the task. Things that are comparatively easy in Manila are very difficult in a remote municipality. One of the greatest obstacles was the lack of proper means of disposing of night soil and waste. It is easy enough to have ordinances passed, but without money and without facilities it is almost impossible to carry them into effect.

The committee, after correspondence with all the district health officers in the Islands, finally submitted a draft of the proposed code, and this was referred to another committee for special consideration with reference to the legal aspects and adaptability to the necessities of the municipalities. The code has been redrafted and is now ready to present to the Philippine Legislature for action.

It is not expected that it will be perfect, but if uniformity can be secured and sanitation can become recognized through a special law, a great deal will have been accomplished.

The main features of the code deal with the disposal of wastes, garbage, and rubbish, municipal cleanliness, and the regulation of places where food and drink are sold.

So far as possible the code has been brought into conformity with the sanitary code of Manila.

District health officers have been given more authority than they formerly possessed, not with a view to increasing their power because they are Bureau of Health men, but simply to have some one who can be made to feel the responsibility of allowing insanitary conditions to exist. If it can be shown that there is any better person to exercise sanitary authority in a sanitary district than the district health officer, the Director of Health has no objection to making this person the responsible official.

CONFERENCE OF THE DISTRICT HEALTH OFFICERS.

A conference of the district health officers has been called for the early part of the fiscal year 1914 and its proceedings will be published in the next annual report, but as the preliminary arrangements pertain to the period covered by this report brief mention of it is now appropriate.

This conference will be held in order that a better and more uniform understanding may be reached concerning the vital, everyday, practical questions through discussion and exchange of ideas and with a view of working out a plan for accomplishing results.

The proceedings will be of an informal character so that everyone present will feel at liberty to express his opinion and make suggestions as to means and methods for securing greater efficiency.

The following program has been prepared for the general guidance of the deliberations of the conference:

FIRST DAY.

Chairman's address	Victor G. Heiser, M. D.
The disposal of human wastes in the provinces	Vicente de Jesus, M. D.
(Discussion opened by José Mascuñana, M. D.)	
Beriberi	Rafael Villafranca, M. D.
Malaria—etiology, symptomatology and differential diagnosis	Andrés Catanjal, M. D.
Malaria—prophylaxis and treatment	Florentino Ampil, M. D.
(Discussion opened by Zach Laughlin, M. D.)	

SECOND DAY.

Necessity for Bureau of Health approval of building and plumbing permits in the provinces. House sanitation	Arlington Pond, M. D.
(Discussion opened by Jose Bantug, M. D.)	
Typhoid fever and its important features in relation to sanitation	Gabriel Intengan, M. D.
(Discussion opened by Vicente Rivera Sayo, M. D.)	
General, uniform sanitary improvements needed in the provinces. Recommendations	G. I. Cullen, M. D.
(Discussion opened by Francisco Lopez y Lubelza, M. D.)	
Act No. 2156 from a practical standpoint. Advantages and disadvantages	Jacobo Fajardo, M. D.
(Discussion opened by Andres Bautista, M. D.)	
Discussion of any pertinent subjects.	

THE PHILIPPINE TRAINING SCHOOL FOR NURSES.

During the year a circular of information in pamphlet form, well illustrated, was published. This circular gives a brief history of the beginning of this useful profession in the Philippines, the terms and conditions upon which the Government school is open to applicants, and the course of studies pursued there. The circular may be had upon application.

The following proposed act providing for the examination and registration of nurses in the Philippine Islands has been prepared and recommended by the Bureau:

AN ACT PROVIDING FOR THE EXAMINATION AND REGISTRATION OF NURSES IN THE PHILIPPINE ISLANDS.

By authority of the United States be it enacted by the Philippine Legislature, that:

SECTION 1. The Director of Health shall appoint a board for the examination and registration of nurses in the Philippine Islands, consisting of one licensed physician and two reputable nurses who have graduated from recognized training schools. The members of the board shall hold office for three years after their appointment and until their successors are appointed and qualified: *Provided,* That the first appointees shall be appointed for a period of one, two, and three years, respectively, as specified in their respective certificates of appointment from the Director of Health: *And provided further,* That no member of the faculty of any training school for nurses shall be eligible for appointment on the said board. Each appointee shall qualify by taking and subscribing to the following oath:

"I, ..., having been appointed a member of the board for the examination and registration of nurses in the Philippine Islands, do solemnly swear that I am a graduate in good standing of the .... Training School for Nurses, or Medical College, in the city of ....; that I will well and truly perform all the duties of said office; that I will faithfully account for all moneys coming into my hands as a member of said board; that I will bear true faith and allegiance to the Government of the United States; and that I take this oath without any mental reservation whatsoever. So help me God."

The oath shall be filed in the office of the Director of Health. Any vacancy occurring on the said board shall be filled within one month after it occurs. The Director of Health may remove any member of the board for continued neglect of duty, incompetency, or for unprofessional or dishonorable conduct.

SEC. 2. The board for the examination and registration of nurses shall appertain to the Bureau of Health, so far as executive action may be required in connection with it, and an appeal shall lie with the Secretary of the Interior, whose decision shall be final. It shall organize inmmediately after the appointment of its members, and annually thereafter on the anniversary of its first organization, by electing from its members a president, who shall be its chief executive officer, and a secretary-treasurer. It shall procure and keep a seal with which to attest its official acts. The members of the board shall receive compensation as follows: The secretary-treasurer shall receive the sum of three pesos for each person examined or registered by the board, and each of the other members shall receive the sum of one peso and fifty centavos for each person so examined or registered. The amounts due to the members of the board for compensation shall be paid by the Bureau of Health. The secretary-treasurer shall execute a bond for five hundred pesos, which shall be approved by the Treasurer of the Philippine Islands, conditioned that said treasurer will deposit in the Insular Treasury all moneys received and in other respects faithfully discharge the duties of the aforesaid office. When it is deemed advisable to appoint a nurse in the Government service as a member of the board for the examination and registration of nurses in the Philippine Islands, the compensation herein allowed may be paid in addition to other compensation.

SEC 3. The secretary-treasurer shall keep a record of the proceedings of the board and a register of all persons to whom certificates of registration as nurses have been issued under the provisions of this Act, setting forth the name, age, sex, and place of business of each, the post-office address, the name of the training school from which graduated or in which studies have been carried on, and the date of such graduation or term of study, together with the time spent in the study of nursing elsewhere, and the names and locations of all institutions which have granted to such person degrees or certificates of whatever character.

SEC. 4. The board for the examination and registration of nurses in the

Philippine Islands shall meet in the city of Manila for the purpose of examining candidates desiring to practice nursing, on the second Tuesday of January and July of each year. Such notice of these meetings shall be given as the regulations of the board may prescribe. The board shall issue two forms of certificates of registration to persons who have been examined and favorably passed upon: One for persons who have graduated at recognized training schools, which certificate shall be "registered nurse;" the second for persons who have not graduated at recognized training schools but have passed a satisfactory examination before the board. This certificate shall be known as "second-class nurse." Each certificate shall be signed by a majority of the members of the board. The secretary-treasurer shall collect a fee of fifteen pesos from each person who applies for registration as a nurse and shall deposit the sum so collected into the Insular Treasury.

SEC. 5. On and after .... first, nineteen hundred and ...., it shall be unlawful for any person to practice as a nurse in any of its branches in the Philippine Islands until a certificate of registration has been obtained from the board: *Provided*, That nothing in this Act shall apply to nurses in the public services of the United States or to persons registered under the provisions of Act Numbered Three hundred and ten.

SEC. 6. Every person desiring to begin or continue the practice of nursing in the Philippine Islands shall apply to the board for the examination and registration of nurses for a certificate of registration of the class desired, and such applicant shall submit to an examination in the branches taught in recognized training schools and present such evidence of graduation or study as the said board may require. Examinations may be written or oral or both. In case any applicant shall fail to pass a satisfactory examination, reëxamination shall not be allowed until after six months have elapsed. The board may issue temporary certificates valid until the next regular examination, or it may give special examinations, but no temporary certificate shall be valid for a greater period than six months: *Provided*, That nurses accompanying patients from other countries may continue to nurse such patients, but no other, without having a certificate of registration.

SEC. 7. The board for the examination and registration of nurses in the Philippine Islands may refuse to issue a certificate to any individual whose reputation and character are such as to bring dishonor or discredit upon the profession. In case of such refusal the reasons shall be stated to the applicant in writing. The Secretary of the Interior may revoke any certificate issued by the board upon evidence of unprofessional, immoral, or discreditable conduct, after due notice to the person holding the certificate, and a hearing before the Director of Health. The decision of the Secretary of the Interior shall be final.

SEC. 8. The board for the examination and registration of nurses shall have authority to make regulations determining the standards to be required by the board and generally such other regulations as may be necessary for the proper discharge of its duties, including the scope and character of examinations.

SEC. 9. Any person shall be regarded as practicing nursing within the meaning of this Act who shall undertake to care for the sick or injured under the direction of physicians or independently for a salary, fee, or compensation.

SEC. 10. Any persons practicing, holding themselves out, or advertising as a nurse after .... first, nineteen hundred and ...., without first having obtained the certificate of registration provided for in section four, or otherwise contrary to the provisions of this Act, shall upon conviction be punished by a fine of not more than two hundred pesos.

SEC. 11. This Act shall take effect upon its passage.

VENTILATION OF CINEMATOGRAPH THEATERS.

During the past year much attention has been given to the question of the proper ventilation of rooms used for cinematograph purposes. An investigation made as to the conditions in Manila and in the provinces shows that the ventilation at present is bad and in urgent need of correction. A study of the question is now being made with the hope of evolving a design for a building that will permit the free entrance of air without admitting light.

ALCOHOLISM.

Alcoholism, while not frequently encountered among Filipinos, is common among Americans, Spaniards, and other Europeans in the Philippine Islands. Beginning December, 1911, the treatment advocated by Dr. Alexander Lambert of New York was given a trial with the following results: Of the 22 cases treated, all left the hospital without any desire for alcohol. Of the 17 cases that it was possible to locate 8, or 47 per cent, remained total abstainers at the end of three months and some have continued so for nearly two years.

Case No.—	Date of admission.	Result of treatment.
1	Dec. 19, 1911	Relapsed after 3 months.
2	Dec. 29, 1911	Not located.
3	Mar. 3, 1912	Relapsed. Gone to United States.
4	Apr. 1, 1912	Successful.
5	May 29, 1912	Do.
6	June 1, 1912	Do.
7	Oct. 2, 1912	Relapsed some time ago.
8	Nov. 6, 1912	Relapsed about July 15, 1913.
9	Dec. 15, 1912	Not located.
10	Dec. 12, 1912	Gone to United States.
11	Dec. 21, 1912	Relapsed after 3½ months.
12	Feb. 26, 1913	Successful.
13	Mar. 23, 1913	Not located.
14	Mar. 7, 1913	Readmitted August 15, 1913.
15	Mar. 13, 1913	Reported to be successful.
16	Apr. 10, 1913	Relapsed.
17	Apr. 13, 1913	Not located.
18	May 21, 1913	Successful.
19	June 1, 1913	Reported to be successful.
20	June 16, 1913	Relapsed July 22, 1913.
21	June 17, 1913	Reported to be successful.
22	June 21, 1913	Relapsed as soon as left San Lazaro.

AMŒBIC DYSENTERY.

The results obtained in the treatment of amœbic dysentery by ipecac and emetine have been very satisfactory and there is reason to hope that the day is not far distant when amœbic dysentery can be treated with the same certainty of success as malarial fever or syphilis.

The ætiology of the disease has been made more clear through the work of Mr. Ernest L. Walker, B. A. S., B. S., S. D., the acting chief of the Biological Laboratory of the Bureau of Science, whose findings are in accord with the conclusions of a number of competent workers in other parts of the world whose researches tend to place the diagnosis of this disease on a scientific basis and make available considerable evidence showing that the so-called "water amœbæ" are not pathogenic. It is proposed shortly to utilize this knowledge by making stool examinations of servants, especially those connected with the handling of food supplies, in hotels, boarding houses, hospitals, etc., with the hope of detecting mild cases and carriers. The question as to which amœba are pathogenic and which are not cannot be considered, however, as being completely settled; and in the meantime the safest course to pursue is not to ingest any water or food that contains any kind of amœba.

THE BLIND.

The Bureau of Education maintains a school for defective children in the city of Manila. A number of blind pupils are cared for in this institution. The Bureau of Health has a contract with the Hospicio de San Jose for the care of the indigent blind.

Apart from these institutions very little arrangement has been made for this class of people and the great majority are cared for by their relatives or friends. Some live by begging and others are engaged in agricultural and commercial enterprises, and a few are wards of the government of the municipalities to which they belong.

The number of blind persons in the Philippine Islands and their distribution by provinces are shown in the statistical tables at the end of this report.

CEREBROSPINAL MENINGITIS.

The discovery of the existence of cerebrospinal meningitis in the Philippine Islands dates back to the early days of American occupation. Strong and Musgrave found 12 typical cases among American soldiers at the Departmental (Division) Hospital during the winter of 1899–1900. Several of their patients died and the organism was isolated at necropsy. Musgrave also isolated the organism in a Filipino who came to necropsy in 1903. Whitmore and three other pathologists, about the same time or possibly a little later, also isolated the organism. Besides these cases other suspected cases were reported by Willets and Sison. In the service of Dr. Eleanor J. Pond at the Mary J. Johnston Hospital a case was admitted September 6, 1912, and so far as known this is the first patient among Filipinos of which there is a complete history. Doctor Willets makes the following report of this case:

Gregorio Pacheco, a 6-year-old boy of Malolos, Bulacan Province, was admitted to the Mary Johnston Hospital, Manila, on September 6, 1912, with a history of having had fever on September 2. On September 3, he had projectile vomiting. On September 4, vomiting was absent; the patient was semiconscious, and he showed some retraction of the head.

On admission to the hospital the patient was restless and somewhat delirious. Opisthotonus was marked; Kernig's sign and trismus were present; the temperature was 39.1° C.; pulse, 125; and respiration, 33. On September 7, the restlessness was greatly increased; the body was rigid; the jaws were stiff; opisthotonus, Kernig's sign, trismus, and photophobia were present; and touching the patient produced tremors. Fifteen cubic centimeters of very turbid cerebrospinal fluid were removed by lumbar puncture. The patient improved rapidly after this operation. On the following day the muscles were slightly relaxed, and on the second day he was even less uncomfortable, and took milk and ice by mouth. The blood picture at this time was as follows:

Hæmoglobin	per cent	95
Erythrocytes		4,400,000
Leucocytes		21,000
Polynuclears	per cent	74
Small lymphocytes	do	15.5
Large lymphocytes	do	6
Transitionals	do	1
Large mononuclears	do	2
Eosinophiles	do	1.5
Mast cells	do	1

An urinalysis made on September 10 was as follows: Yellow, acid, cloudy; specific gravity, 1.018; a trace of albumin; no sugar; ammonium urates in abundance; mucus; no pus and no casts. The temperature gradually subsiding, became normal on September 11, the tenth day of the disease and the fourth day after lumbar puncture. On September 12 an offensive ozæna, which persisted for two weeks, appeared. Blood examination made on September 13 resulted as follows:

Leucocytes		10,500
Polynuclears	per cent	64
Small lymphocytes	do	20
Large lymphocytes	do	5
Transitionals	do	6
Large mononuclears	do	2
Eosinophiles	do	3

On the following day, the urine showed a trace of albumin, otherwise nothing abnormal. On September 16 the patient sat up for fifteen minutes and asked for bread. Light was still displeasing. Fæcal examination revealed the presence of a few ova of Ascaris, Trichuris, and hookworm, and much mucus. On September 19 an afternoon rise of temperature to a fraction below 40° C. occurred, and the patient vomited repeatedly. During the succeeding five days there was a daily rise of temperature and headache was present. The temperature then returned to normal. On

October 1 profuse perspiration was present most of the morning, and for three or four days thereafter a rise of temperature occurred once in twenty-four hours; this apparently yielded to the administration of quinine and aspirin. On October 8 the blood picture was as follows:

Hæmoglobin	per cent	95
Erythrocytes		4,200,000
Leucocytes		13,000
Polynuclears	per cent	74
Small lymphocytes	do	18.5
Large lymphocytes	do	3.5
Transitionals	do	2
Eosinophiles	do	0.5
Mast cells	do	1

The blood was negative for malarial parasites. His appetite was poor after the rise of temperature on September 19; hence the patient became markedly emaciated. He appeared to be very homesick; therefore, his father was allowed to take him home on October 11. This change seems to have been beneficial, for his father stated on October 30 that the boy was gaining weight and walking about.

The specimen of cerebrospinal fluid was received by us on September 7, six hours after the puncture had been made by Dr. A. M. Saleeby, visiting physician at the Mary Johnston Hospital. It was very turbid and contained numerous grayish white flakes. Smears from the sediment obtained by centrifuging for about twenty minutes disclosed a moderate number of biscuit-shaped, Gram-negative diplococci, which were chiefly within polynuclear cells. The polynuclears were very numerous; mononuclears, rare. Cultures on Loefler's blood serum showed a pure growth of a Gram-negative diplococcus on the following day. Subsequently, transplants were made to two tubes of each of the following culture media:

Solid media.		Liquid media.
Slants.	Stabs.	
Whole human-blood acid agar-agar. Loefler's blood serum. Agar-agar, 1. Agar-agar, 1. Glycerine agar-agar. Potato.	Lactos litmus agar, 1. Glucose agar.	Peptone, 1. Lactose bouillon. Plain bouillon, 1.

In no case was the growth luxuriant. The best results were obtained with the whole human-blood acid agar-agar, while those on Loefler's blood serum ranked second. The growth on acid and alkaline agar-agar and on glycerine agar-agar was very scanty, only isolated colonies developing. Potato media gave negative results. Of the stab transplants, one of each variety gave a very slight growth along the line of puncture, and one of each resulted negatively. No growth was obtained in fluid media excepting in one peptone tube, and this was unsatisfactory since it was contaminated with staphylococci.

The isolated colonies were somewhat elevated, yellowish, moist, and rather irregular in outline, regardless of the culture medium used. As they became older, they were white and dry with serrated edges. Smears from the cultures showed the diplococci lying for the greater part in single pairs. Tetragenoid forms were not infrequent; clumps were present; but chains were absent.

The organisms behaved variously toward Loefler's methylene blue. Those from fresh cultures took the stain well as a rule, whereas those from a 48-hour culture took it poorly. Many of them were swollen in these smears, thus losing some of their biscuit shape. It was necessary to make transplants not less than once in forty-eight hours, in order to keep the culture alive.

Fermentation tests gave positive results with glucose and maltose; negative results with saccharose, lactose, and mannite.

Microscopic and macroscopic agglutination reactions were present. On September 13, the twelfth day of the disease, positive microscopic results were obtained in one hour in dilutions of 1 to 20 and 1 to 40 of the patient's whole blood. On the following day macroscopic agglutination was present in dilutions of from 1 to 6 up to 1 to 384 of the patient's blood serum, after incubating at 37° C. for two hours and allowing to stand over night.

Dr. R. W. Hammack, of the College of Medicine and Surgery of the University of the Philippines, isolated the organism from a Filipino 26 years of age who came to autopsy in October, 1912.

The disease, so far as known, never assumed epidemic proportions until June 23, when an epidemic of 20 cases in the railroad camp at Laguimanoc, a barrio of the municipality of Atimonan, Tayabas, began, lasting from the date given until the 17th of November. These cases were reported by Dr. Rafael Villafranca, the district health officer, and from his report the following extract is taken:

> This small local epidemic began on the 23d of June, 1913, and lasted until the 17th of November of the same year, when the last case occurred. One case occurred on June 23 and one on the following day. One case and one death occurred on the 1st of July and one case and one death on the 2d of July. The next case, which also proved fatal, occurred on the 7th of July, and another case occurred on the 9th. Before these cases were reported two children had died under circumstances which now clearly indicate cerebrospinal meningitis.
>
> After the 9th of July no other cases occurred until the 23d of the same month, when one nonfatal case was registered. On August 1st two cases and one death occurred. There were three cases in September, three cases and two deaths in October, and three cases without deaths in November; making in all 20 cases and 8 deaths, or a mortality of 40 per cent.
>
> The following tabular statement will show the ages of the patients:

Age.	Cases.	Deaths.
From 0 to 1 year	2	2
From 6 to 10 years	1	1
From 11 to 15 years	1	0
From 16 to 20 years	10	3
From 21 to 25 years	4	2
From 26 to 30 years	2	0
Total	20	8

Lumbar puncture was made in three cases and the fluid submitted to the Bureau of Science for examination, with the following results:

"The DISTRICT HEALTH OFFICER,
"Lucena, Tayabas.

"SIR: I have the honor to state for your information that the specimens of cerebrospinal fluid collected by Doctor Strahan from Celedonio Derecho, Martín Banot, and Esteban Bacaymo, who were working in the Manila Railroad camp at Laguimanoc, have all been found microscopically positive for the *diplococcus intracellularis.*

"Very respectfully,

"VICTOR G. HEISER,
"Director of Health."

As the existence of the disease had been proved bacteriologically, it was evident that there existed a near-by focus of infection or that the disease had appeared spontaneously. The fact that the epidemic did not spread to other barrios may be due in part to its light character and in part to the rigid quarantine and isolation that were enforced in the families in which it occurred.

Cerebrospinal meningitis, according to the textbooks, is very frequent in infancy, less frequent in adults, and rare in the aged. In this epidemic there was a mortality of only 40 per cent, which is less than the mortality in the epidemics of Germany and France—that of Germany being 51.7 per cent and that of France being 50 per cent. The Boston epidemic had a mortality of 68 per cent.

With regard to the symptoms it may be said that the attacks came on suddenly. This taken together with the nervous symptoms, the pain, and the rigidity of the neck, were the most helpful features in making the diagnosis.

Kernig's sign was also constant. It will be remembered that Netter of France was the first to insist upon the value of this sign. His observations have since been confirmed by others.

There is still a question as to the origen of this epidemic. The railroad camp is located on elevated ground at least 20 feet above the sea level and is a mile or more from the thickly inhabited portion of the barrio of Laguimanoc. In the camp there are about 1,200 employees, Filipinos, Japanese, Americans, and others. The first theory for consideration was that it might have been started by a bacilli carrier, for it will be remembered that Selter has found the organism after the patient was apparently well for six months; but apart from the two children mentioned there is no record of previous cases to which the epidemic might be traced. (Some of the laborers had come from Cebu and it was reported that the disease had been prevalent there, but after thorough investigation by Doctor Pond, the district health officer of Cebu, he reports that the rumor is without foundation.) All the evidence points to a bacilli carrier as the starting point, but where such bacilli carrier came from and when he had the disease and how he inoculated the others are points still shrouded in mystery. There is no question but that the fatigue connected with the work and the camp life had something to do with the development of the epidemic. The weather may also bear its share of blame. During this time the atmosphere was warm and damp.

The sanitary measures adopted were isolation in a provisional hospital and the establishment of a strict quarantine by the municipal police. As a precaution the houses in which cases occurred and the clothing of the patients were thoroughly disinfected and the well people who lived in the house with the patients were given an antiseptic mouth and nose wash. In addition to these measures, lectures were delivered in the local dialect to all the workmen to explain so far as possible the danger of the disease and how to avoid infection. They were told that, while doctors were not sure as to how the infection was carried, the probabilities were as follows:

The meningococci eventually reach the meninges by the blood stream, not the lymphatics. The exact portal of infection is uncertain. The organism lodges about the back of the throat and nose, and probably enters through some abrasion of the buccal, tonsillar, or intestinal mucous membrane. The occasional presence of pulmonary complications would also suggest the possibility of infection by inhalation. The vitality of the organism permits of its ready distribution in dried sputum, and cultures have been obtained from the air of rooms in which "spitting" has been prevalent. Food is readily contaminated, and a third person has been proved to act as an intermediary. Probably most infectious during the first two weeks.

Doctor Villafranca treated patients symptomatically, alleviating the distressing symptoms of the disease and maintaining nutrition. The low mortality speaks well for his treatment, even though the manifestation of the disease may have been somewhat mild.

CHOLERA.

Cholera again made its appearance in Manila on August 24 after an absence of over two years. The first case occurred in a Filipino who worked as a carpenter at one of the local hotels but who lived at 1060 Calle San Sebastian. It is said that he invariably took his meals at his home. A careful inquiry made at the hotel showed that no guest had arrived at that institution from Hongkong, or any other foreign country where cholera was present, for more than ten days previous. This victim left his place of employment on the evening of August 23, apparently in good health. About noon of the next day he was seized with violent pains in the abdomen which later in the afternoon increased in severity. In addition he had severe cramps in the muscles of the calves and forearms. There was no diarrhœa. A physician was called, who reported that by evening the case presented many of the clinical symptoms of cholera, and he ordered the patient transferred to the San Lazaro cholera hospital. Upon his arrival at that hospital, about 10 p. m., he was in a moribund condition and died a few minutes later. At the autopsy, which was held on the morning of August 25, typical lesions of cholera *sicca* were found in the intestines. The lower bowel contained a large amount of hard, formed fæces. A rice-water-like fluid was found in the ileum, cultures from which, prepared in accordance with the procedure recommended by the International Conference of Public Hygiene, resulted in the isolation of the true cholera vibrio.

Another case of cholera came under observation on August 25. It occurred in a Filipino who was employed as a cook by a British family in Caloocan, which is a suburb of Manila and a number of miles removed from the first case. No connection whatsoever could be traced between them. This victim gave a history of having been ill with diarrhœa, and having cramps in the muscles of the extremities for a period of about a week previous and as his employer thought that he was malingering he was dismissed. The next day (August 25) after this occurred he was found in a house in the San Lazaro district and then promptly transferred to the San Lazaro cholera hospital. The records of that institution show that he had rice-water stools, cramps in the muscles of the legs, suppression of urine, husky voice, subnormal temperature, and other well-recognized symptoms of cholera. Cultures made from his stools, examined in the same manner as mentioned above, resulted positively for cholera.

The next case came under observation on September 13 and was in the person of a carpenter who worked and lived in the district of Malate. This address is several miles removed from where the previous cases had occurred and no connection could be traced with them. During the week ended September 20 there were 3 cases; for the week ended September 27, 5 cases; and for the week ended October 4, 8 cases.

The first 8 cases occurred in widely separated sections of the city and a most careful investigation failed to trace any connection whatsoever between them. After that, however, there were a number of instances of contact infection. A most noteworthy occurrence in connection with the outbreak was the fact that cholera vibrios were found in the stools of the contacts in many instances as may be seen from the following table:

Case No.	Contacts examined.	Found harboring vibrios.	Found harboring true cholera vibrios.	Percentage of persons examined harboring cholera vibrios.	Toilet facilities.
1	20	1	1	5	Flush closet.
2	17	2	0	0	Pail system.
3	0	0	0	--------	
4	7	1	0	0	Public closet.
5	4	0	0	0	Flush closet with septic tank.
6	2	0	0	0	Pail system.
7	6	0	0	0	Public closet.
8	5	0	0	0	Flush closet.
9	14	0	0	0	Do.
10	6	0	0	0	Public closet.
11	9	0	0	0	Dry vault.
12	17	0	0	0	Pail system.
13	5	0	0	0	Public closet.
14	10	0	0	0	Do.
15	10	0	0	0	
16	9	0	0	0	Flush closet.
17	14	1	1	7.14	Public closet.
18	12	1	1	8.33	
19	51	1	1	1.96	
20	29	0	0	0	Dry vault.
21	5	0	0	0	Public closet.
22	4	0	0	0	Do.
23	19	0	0	0	Flush closet.
24	4	0	0	0	Public closet.
25	6	0	0	0	Pail system and dry vault.
26	11	4	4	36.36	Dry vault.
27	13	0	0	0	Do.
28	70	4	4	5.7	Flush closet.
29	7	0	0	0	Public closet.
30	15	0	0	0	Do.
31	14	0	0	0	Dry vault.
32	14	0	0	0	Do.
33	14	0	0	0	Public closet.
34	40	4	1	2.5	Flush closet.
35	4	1	0	0	Dry vault.
36	40	0	0	0	Pail system and dry vault.
37	4	2	0	0	Flush closet.
38	2	1	0	0	Do.
39	19	0	0	0	
40	14	1	1	7.14	
41	20	0	0	0	Public closet.
42	13	1	1	7.7	Do.
43	15	0	0	0	Flush closet.
44	0	0	0	--------	None.
45	9	1	0	0	Dry vault.
46	3	0	0	0	Public closet.
47	10	0	0	0	None.
48	27	1	1	3.7	Flush closet.
49	19	0	0	0	Public closet.
50	0	0	0	--------	
51	8	0	0	0	Pail system.
52	8	0	0	0	Do.
53	19	0	0	0	Public closet.
54	0	0	0	--------	
55	19	0	0	0	Flush closet.
56	2	2	2	100	Public closet.
57	13	0	0	0	Do.
58	14	3	3	21.43	
59	17	0	0	0	Dry vault.
60	10	1	1	10	Do.
61	13	3	3	23	Public closet.
62	7	0	0	0	Do.
63	17	4	4	23.53	2 flush closets; 2 dry vaults.
64	8	0	0	0	Public closet.
65	0	0	0	--------	
66	0	0	0	--------	Do.
67	9	0	0	0	Do.
68	7	0	0	--------	Dry vault.
69	6	0	0	0	Public closet.
70	20	0	0	0	Do.
71	4	0	0	0	None.
72	3	0	0	--------	Dry vault.

An inspection of the premises in which cholera cases occurred showed that there was apparently more or less direct connection with the disposal of fæces and outbreaks of the disease. The foregoing table also shows that the disease in over 80 per cent of the cases occurred on premises in which there was no modern plumbing. This table further shows that of 72 contact groups examined, 40 of them were vibrio carriers of some kind and 29 were true cholera carriers.

These results show in a very striking manner the necessity for proper laboratory facilities if a campaign against cholera is to be intelligently directed.

Later, the disease made its appearance in Orani, Orion, and Pilar, in Bataan Province; in Bocaue, Meycauayan, Bulacan, Baliuag, and Malolos, in Bulacan Province; in Bacoor, Cavite, Rosario, and Santa Cruz, in Cavite Province; in Angeles, Guagua, Macabebe, Mexico, San Fernando, Santa Ana, and Sexmoan, in Pampanga Province; in Asingan, Dagupan, Lingayen, Santa Barbara, and Urdaneta, in Pangasinan Province; in Caloocan, Fort McKinley, Las Piñas, Navotas, Parañaque, Pasay, Pasig, Pateros, San Felipe Neri, San Pedro Macati, and Taguig, in Rizal Province. During October the disease suddenly made its appearance in Cebu and Opon, in Cebu Province, with a total of 3 cases and 2 deaths. The disease here, as in former places, was apparently sporadic and could not be traced to any outside source. Banga, Calivo, Lezo, and New Washington, in Capiz Province, became infected during November. The origin of the infection could not be traced.

The diagnoses were microscopically confirmed in each town in which the disease made its appearance.

So far it has been possible to eradicate the disease within a comparatively few days in any town in which it appeared in each instance in which prompt measures were taken with the first cases. The coöperation received from the public this time in reporting cases promptly has been of great assistance and it is believed that this coöperation was largely secured on account of the less drastic measures which were employed. For instance, no quarantine measures were imposed except to quarantine the house in which the case of cholera occurred, when it was not possible to transfer it to a hospital. It is believed that the good will gained by this procedure more than offset the risk which was run by not imposing more extensive quarantine methods. The general populace among whom cholera appeared made practically no objections to the methods which were employed. There was one notable exception, however, to the foregoing, and this was in the Province of Capiz. It seemed impossible to secure the coöperation and assistance of the public there and the efforts of the sanitary officials were much hampered by the spread of rumors that the latter were poisoning the wells and that the agents of the government did not have at heart the well-being of the people.

From the best information obtainable, there was no cholera anywhere in the Philippines since October, 1911, and a careful investigation fails to show that the disease was introduced from a foreign country. It has been the practice of the Quarantine Service during the past two years to examine the stools of all steerage passengers and of those who come from cholera districts from foreign countries on all incoming vessels, and for more than a year previous to the appearance of cholera in Manila no passengers harboring the cholera vibrio were found. The appearance of the disease, often simultaneously, in widely separated sections and the failure after most careful investigation to trace the infection would appear to furnish evidence that the disease was not introduced from a foreign country in the first place. After the disease once established itself in a town sometimes an infection could be traced to a previous case but as a rule they occurred in widely separated barrios, that had no common water or food supply and where no contact by persons or insects could be traced with previous cases.

The record of the outbreak, with the exception of Capiz, indicates that the disinfecting and other sanitary measures were promptly and effectively applied, because it was very rare to have more than one case in a house or even a district, unless the cases were taken all at the same time.

From the foregoing it is apparent that the origin of the present cholera outbreak cannot be definitely traced. There is considerable evidence from an epidemiological standpoint that cholera carriers may always be present in the Philippines and that perhaps the organism passes through a cycle during certain stages of which it may perhaps not be recognizable by present laboratory methods, yet such organisms when they find their way at another stage of their cycle into the intestines of a more susceptible individual may produce cholera. The increase and decrease in virulency also very probably play an important part as to whether an epidemic results. If the sanitary measures employed prevent the passage of the organism through the intestines of a number of different persons, the virulence remains low and the disease soon disappears.

In Manila to December 31, 1913, there have been 161 cases of which 110 died. In the provinces there were 165 cases with 107 deaths. It may be of interest to note that in the outbreak of 1902 there were during a similar period 3,033 cases and 2,348 deaths in Manila and 12,121 cases and 8,923 deaths in the provinces.

MEASURES EMPLOYED TO COMBAT CHOLERA.

The whole campaign was directed toward the prompt disinfection of the stools and vomited matter of the sick and of the carriers. Briefly, this was accomplished by isolating the sick and the carriers in cholera hospitals or other quarters, and where this was not possible by having their stools passed directly into receptacles which contained disinfecting solutions. In communities in which cholera appeared, prompt steps were taken to dispose of the excreta of the entire population in a safe manner. On account of the very prevalent habit among the masses of eating with the fingers from a common receptacle and on account of the personal habits of the people, strong recommendations were made that everyone in an infected district wash his hands in a 1 to 1,000 bichloride or other disinfecting solution before taking food. Water and food supplies were safeguarded. A campaign of education and other measures were carried out as in previous outbreaks, mention of which is made in more detail in previous annual reports and in the publications of this Bureau.

At the Bureau of Science considerable work is now being done in order to ascertain whether flies, roaches, and other insects may be responsible for carrying the infected dejecta to food, and much evidence is accumulating to show that in all probability infection takes place at times in this way. It is believed that the measures outlined above with regard to the disposal of human excreta probably prevented water infection and for that reason no considerable number of the cases in this outbreak were contracted from this source.

TREATMENT.

Intravenous transfusion of salt solution was mostly depended upon. More detailed information, particularly with regard to new methods may be seen in the report of the chief of the San Lazaro Hospital division, published elsewhere in this report.

RECOMMENDATIONS.

The experience in this outbreak has again forcibly demonstrated the necessity for further laboratory studies with regard to this disease. The reasons for the simultaneous appearance of the disease in widely separated sections, if clearly understood, might be of great assistance in combating cholera.

FILARIASIS.

Filariasis in the Philippines has been reported upon from time to time by various authors. Several years ago the Army Board for the Study of Tropical Diseases as They Exist in the Philippine Islands published a report upon this disease. During the past few years all prisoners confined at Bilibid Prison have been regularly examined for filaria, and a study of the statistics shows that the disease apparently does not spread after the prisoners once reach Bilibid; in other words, so far as known, no infection is contracted in that institution.

An examination of the prisoners at Bilibid for filaria immediately preceding August, 1913, shows the following results:

Filaria report from Bilibid Prison.

Province.	Total number examined.	Positive.	Negative.	Percentage positive.
Albay	96	26	70	27.08
Ambos Camarines	133	32	101	24.06
Antique	26	4	22	15.38
Bataan	26	1	25	3.84
Batangas	77	4	73	5.19
Bohol	29	8	21	27.58
Bulacan	133	18	115	13.54
Cagayan	63	----------	63	----------
Capiz	149	38	111	25.50
Cavite	57	2	55	3.50
Cebu	198	25	173	12.63
Iloilo	235	25	210	10.03
Ilocos Norte	70	4	66	5.71
Ilocos Sur	51	----------	51	----------
Isabela	27	----------	27	----------
Laguna	70	1	69	1.42
La Union	36	1	35	2.78
Leyte	196	69	127	35.20
Manila	118	20	98	16.94
Masbate	11	1	10	9.09
Mindoro	8	2	6	25
Misamis	78	21	57	26.92
Mindanao	11	1	10	9.09
Mountain	6	----------	6	----------
Nueva Ecija	91	5	86	5.49
Nueva Vizcaya	7	----------	7	----------
Occidental Negros	47	2	45	4.25
Oriental Negros	59	9	50	15.25
Palawan	10	----------	10	----------
Pampanga	94	2	92	2.12
Pangasinan	211	2	209	.94
Rizal	65	8	57	12.30
Romblon	16	2	14	12.50
Samar	37	2	35	5.40
Sorsogon	69	22	47	31.88
Surigao	64	6	58	9.37
Tarlac	43	5	38	11.62
Tayabas	44	7	37	15.90
United States	25	----------	25	----------
China	256	28	228	10.93
Total	3,042	403	2,639	13.24

GONORRHŒAL OPHTHALMIA.

Dr. Reinhard Rembe, chief of the department of eye, ear, nose, and throat of the Philippine General Hospital, reported during June, 1913, that there was an alarming increase in the number of cases of gonorrhœal ophthalmia. An investigation showed that many of these were probably indirectly contracted from women who were regular attendants at the public dance halls in Manila. Between May 1 and September 1 there were 25 cases treated at the Philippine General Hospital. Of this number 2 became totally blind and 2 became blind in one eye only. On July 1 the "Dance Hall Ordinance," which requires the medical inspection of all women who dance in public dance halls, went into effect. This resulted in many venereal cases being brought under treatment and in consequence a reduction in the number of cases of venereal diseases. In addition, an active campaign of education was begun. Doctor Rembe prepared a newspaper article, which was published in the press of Manila. Photographs were taken of the victims and lantern slides were made of these and were shown in the cinematograph shows of the city with proper explanatory notices attached to them. Soon afterwards there was a rapid decline in the number of cases and between September 1 and December 31 eleven cases were treated at the Philippine General Hospital.

INSANITY.

In the statistical portion of this report will be found a table showing that there are over 3,500 people classed as insane in the Philippine Islands. This list includes the epileptic, the demented, and the idiotic.

It was hoped that the Legislature would do something towards establishing a general insane hospital, but on account of lack of funds there will be no action taken during the present session. At present there are hospital accommodations for about 600. The other 3,000 who ought to be cared for in properly equipped institutions must necessarily remain public and private charges.

INTESTINAL PARASITES FOUND IN PRISONERS AT BILIBID PRISON.

All prisoners before being admitted into Bilibid are placed in quarantine and treated for intestinal parasites until they are twice negative microscopically. Upon a recent examination which was made of prisoners, the following results were obtained:

Stool examinations at Bilibid Hospital from July 1, 1913, to December 31, 1913.

Brigades.	Amœba.	Ascaris.	Balantidium coli.	Hookworm.	Monads.	Oxyuris.	Strongyloides.	Taenia.	Trichuris.
No. 1, presidio and carcel	8	22	----	19	16	----	----	----	56
No. 2, presidio	1	18	----	9	3	----	----	----	28
No. 2, carcel	1	3	----	3	3	----	----	----	6
No. 3, presidio	25	80	----	42	13	3	2	----	80
No. 4, A presidio	5	7	----	6	----	----	----	----	16
No. 4, B presidio	14	55	----	24	6	1	1	----	38
No. 4, A carcel	4	15	----	20	14	1	----	----	44
No. 4, B carcel	----	5	----	10	11	----	----	----	24
No. 5, presidio	30	87	----	42	21	5	1	----	70
No. 5, A carcel	1	18	----	3	----	----	----	----	26
No. 5, B carcel	1	19	----	30	15	----	----	----	50
No. 6, A carcel	----	17	----	9	4	----	----	----	25
No. 6, B carcel	----	5	----	6	1	1	----	----	19
No. 8, presidio	17	76	----	48	27	17	----	----	100
No. 8, carcel	2	53	1	41	16	6	2	----	68
No. 9, presidio	14	73	----	33	22	----	----	1	101
No. 9, A carcel	7	16	----	10	6	----	1	----	23
No. 9, B carcel	13	45	1	25	18	1	2	1	55
Cell house, presidio and carcel	----	4	1	3	2	----	1	----	11
Tuberculosis ward	1	13	----	9	4	1	1	----	29
Total	144	631	3	392	202	36	11	2	869

Total number of prisoners examined	2,416
Total positive for intestinal parasites	2,290
Per cent positive	94

The foregoing table shows that either the treatment upon entrance into the prison was not effective or that the prisoners became reinfected after they entered that institution. It is difficult to understand how they could become reinfected because they use only boiled water, no raw vegetables are served and they do not work where they could become infected through contaminated soil. The disposal of excreta in Bilibid is by means of modern flush closets.

LEPROSY.

The segregation of lepers with the view to reducing and finally exterminating the disease from the Philippine Islands was begun in 1906, but it was not until 1911 that anything like a complete collection of lepers from all parts of the Islands had been made. During the fiscal year ended June 30, 1913, there were admitted to the Culion leper colony 1,071 lepers who, upon their own statements, had been afflicted with the disease for a period of over five years. Examinations of these cases showed that in all probability most of them had been afflicted for a longer period. From the foregoing it is apparent that there must still be many centers of infection throughout the Philippine Islands and that a rapid reduction in the number of new cases can scarcely be expected as yet. Examinations made of bedbugs captured in the beds and houses in which lepers have been confined were reported upon as follows by Dr. John A. Johnston, of the Bureau of Science:

> Acid fast bacilli were found in the intestines of 1 bug of the first 15 examined individually. The remaining bugs (300) were ground up in lots of 50 in sterile salt solution, centrifuged, and smears made. An average of 100 smears was examined from each lot. Acid fast bacilli were found 4 times, a total of 5 times for the entire number of bugs.

There is no evidence, however, to show that there is any connection between these bedbugs and the spread of the disease.

A review of the literature up to date does not hold forth any hope that the extermination of leprosy can be accomplished except by isolation or segregation. This policy imposes in many instances great hardship upon the lepers themselves and upon their immediate relatives and friends, but it is believed that the measure is fully justified in order that hundreds of others may be saved annually from contracting the disease. For the calendar year ended December 31, 1913, there were 795 cases transferred to the Culion leper colony. With few exceptions, all known cases are now in custody, but it is extremely probable that there are many incipient cases that are as yet unrecognized and it is upon the speedy isolation of these that the successful solution of the problem will probably depend.

ARRESTED LEPROSY.

There is much reason to believe that many persons contract leprosy and that a cure takes place without any treatment and without, perhaps, any suspicion on their part that they had leprosy. It is not an infrequent experience to find persons with anaesthetic areas or in whom large sections of the cutis have undergone fibrous change or evidence of former infiltration in the ears and the alae nasi. A person was discharged a few years ago from the Culion leper colony who, upon admission, had marked clinical symptoms and the leprosy bacillus could readily be found. He took no treatment, but gradually improved and in less than two years was clinically and microscopically negative. He then went to Spain and has not been seen during the past few years.

THE TREATMENT OF LEPROSY AT BUREAU OF HEALTH HOSPITALS.

In the last annual report mention was made of the fact that the hypodermic injection of the chaulmoogra oil formula used by Doctor Mercado, the house physician at the San Lazaro Hospital, had apparently been responsible for two persons having been cured of leprosy and having remained so for a period of two years. During July two additional lepers were discharged from the San Lazaro Hospital after they had been negative for a period of two years. These cases were treated by Doctor Mercado with the following formula:

Chaulmoogra oil	cc....	60
Champhorated oil	cc....	60
Resorcin	grams....	4

Mix and dissolve with the aid of heat on a water bath, and then filter.

One cubic centimeter doses are given at weekly intervals and these are gradually increased up to the point of tolerance. In one of the cases a dose of 20 cubic centimeters was reached, whereas in the other it was not deemed advisable to increase the dose above 5 cubic centimeters on account of the cardiac palpitation which large doses seemed to cause.

The same treatment has been used at the Culion hospital and favorable results are also reported from there.

The clinical record of the cured cases heretofore reported was very incomplete. In order to test the value of the treatment in a more satisfactory manner 12 cases of leprosy were placed under the treatment on February 21, 1912, and an article on the result of the treament will be published shortly in a medical journal. It should be remembered that nothing especially new is claimed for the treatment and also that the results so far do not justify the hope that a specific has been found.

LEPROSY IN BILIBID PRISON.

From time to time cases of leprosy have occurred in Bilibid Prison. It may, therefore, be of interest to record the dates that the prisoners entered Bilibid and the dates upon which leprosy was first recognized in such prisoners. In all, there have been three. The first one entered the prison on June 25, 1903, and did not show any symptoms of leprosy until January, 1911. In the meantime, however, he had been detailed from June, 1907, to July, 1907, on public works, where he might have been exposed to leprosy. He was also an inmate of the Iwahig penal farm colony from February, 1909, until January, 1911, where exposure to leprosy was possible. The second case was admitted in April, 1904, and was detailed on public works at Camp Overton, in Mindanao, in April, 1905. In September, 1905, he escaped but was captured two weeks later. In July, 1906, he was returned to Bilibid. In September, 1908, he was detailed on public works on the Island of Corregidor, but returned to Bilibid during May, 1910. During July, 1911, a definite diagnosis of leprosy was made and he was transferred to the leper hospital. The third case was admitted in March, 1911, was constantly in Bilibid Prison, and showed unmistakable evidences of the disease on November 5, 1913, being transferred to the San Lazaro Hospital on that date. From the foregoing it will be apparent that the first two cases could have contracted the infection outside of Bilibid Prison and that the last case occurred within the generally recognized incubation period of the disease.

BRIEF HISTORY OF LEPROSY IN THE PHILIPPINES.

In order to comply with the frequent requests made upon this office for information with regard to leprosy in the Philippines, Medical Inspector Newberne has prepared the following data:

"In the light of modern knowledge it is not apparent why the realm of theory has been invaded in the search for an explanation of the presence of leprosy among an Island people who have maintained commercial and to some extent visiting relations for centuries with Japan and the mainland of Asia where the disease has prevailed from time immemorial, yet among the first official reports concerning leprosy which were made after American occupation the following is found:

Leprosy was introduced here in 1633. The Emperor of Japan sent a ship with 150 lepers as a present to be cared for by the Catholic priests. These lepers were allowed to land, and as no practical methods were ever adopted to eradicate the disease or prevent its spread, it steadily increased, until now, according to the estimates of the Franciscan Fathers, there are not less than 30,000 lepers in the Archipelago, the larger number being in the Visayas. Under the Spanish régime the order of the Franciscans had charge of the charity work among the lepers. Several hospitals and asylums were built, the largest of which, San Lazaro Hospital, is located in Manila and has a capacity of 400 patients. When a house-to-house inspection was inaugurated in January of 1900 more than 100 lepers were found concealed in houses, and were sent to San Lazaro Hospital. Many others escaped into the surrounding country. The necessity of the segregation and isolation of the lepers on one of the islands was early recognized and agitated by the board of health. As soon as the conditions permitted, the authorities appointed a commission to select a suitable island or islands for this purpose and to present plans and estimates of buildings and to formulate the necessary regulations. This commission is now engaged in this work.

During the whole period of Spanish domination in these Islands there appears to have been no comprehensive official policy for the conservation and promotion of the public health. In no respect was this better exemplified than in the care of lepers. The division of responsibility in such matters which obtained under Spanish rule, between the state and church, was not conducive to the best results, and there does not appear to have been at any time a unity of effort on the part of state officials and church authorities.

Leper institutions were conducted by the church along charitable lines, for the purpose of isolating and taking care of individual sufferers rather than for the effectuation of a policy for eradicating the disease.

The first special leper institution in Manila was established in 1633 by the Franciscans as a department of their general hospital, and was located in the district of Concepcion, just across the street from the site of the present Army Department Hospital. This general hospital was constructed by the Franciscan Order in 1603 and used for all classes of diseases until a separate department was created to care exclusively for leprosy. The lepers of Manila were housed in the hospital, with the exception of a few years between 1662 and 1681, when, for safety during a threatened invasion by Chinese pirates, the hospital was removed to Quiapo and placed under the management of the local priest until 1784, when it was deemed advisable to remove the hospital permanently from Concepcion to a point more distant from the coast defenses, on account of the danger in the case of bombardment of the city, which was brought forcibly to the notice of the Spanish authorities during the English invasion in 1762.

On the expulsion of the Jesuits from the Islands by Carlos III, in 1762, the Spanish Government took possession of the present San Lazaro estate, which at this time (1784) was turned over to the Franciscans for a leper institution, with the understanding that a portion thereof was to be used as a site for a hospital, while the bulk of the estate was to be rented. The revenues thus received were to be devoted to the support of the lepers.

Accordingly, in 1784 the first regular leper hospital was erected. The structure was built of stone, at a cost of "27,540 pesos 2 reales and 2 granos," on the present site of the hospital for dangerous communicable diseases and was named San Lazaro Hospital. From time to time minor additions and repairs were made after damages from earthquakes and storms.

Father Felix Huertas assumed charge of the institution in 1859 and is said to have made great improvements. At this time the buildings were enlarged, the existing extensive stone walls were constructed at a cost of ₱30,000 and a stone building erected for the civil guard (probably the present serum laboratory). Father Felix Huertas seems to have been a man of unusual administrative capacity, especially noted for his ability to get money. It is said that he collected and expended on the institution during twenty-one years of his administration, between 1859 and 1880, about ₱330,000, which was a large sum for the times.

From 1632 until the transfer of San Lazaro Hospital to the United States military authorities, about September 4, 1898, the leper relief work was constantly under the management of the Franciscans, with the exception of the few years that it was administered by the cura of Quiapo.

At the time of the arrival of the American ships at Manila the members of the Franciscan Order engaged in caring for the lepers were living in the first of the two present stone buildings, while the rear one was used for lepers. By August 1, 1898, the disturbed condition of the country reached such a state that it was unsafe for the Spanish priests to live so far out, so on the 12th of that month they left the hospital and moved into the Walled City, notifying the Americans on the following day, but they continued to administer the affairs of the institution until about September 4, when they were formally relieved by the United States military authorities.

At the beginning of American occupation the leper institutions worthy of mention were the hospital of San Lazaro at

Manila, a hospital at Cebu, and another at Nueva Caceres, Ambos Camarines, their total capacity being estimated by the Spanish authorities at 400. Such other provisions as had been made for the care of lepers, aside from the hospitals just mentioned, were of a minor character, the result of local initiative invited by a Royal decree of 1830, and consisted, in many cases, of mere clusters of huts on the outskirts of some large town, and the right to visit certain places in the markets and streets every day for the purpose of begging.

These leper settlements were expedients for providing for the physical necessities and served the purpose of removing from constant contact with the masses a class of individuals who were suffering from a loathsome disease, but owing to the absence or nonenforcement of proper sanitary regulations, the sources of propagation of leprosy among the people of the Islands were not materially lessened by the restrictions imposed upon them.

Such measures were of a charitable and esthetic character and great praise is due to the self-sacrificing workers of those times for the good that they did, but the effect upon the public health was wholly incidental.

San Lazaro Hospital was found practically abandoned on the entrance of United States troops into Manila. Prompt relief was given the few inmates who remained in the institution, but by far the larger portion had left and become absorbed in the community at large. The patients who had left were returned to the hospital by the police when they did not return voluntarily. An administrator was appointed by the provost-marshal-general for the immediate management of the hospital and of the estate from which it derived its chief support.

On July 12, 1899, the Franciscan Order petitioned for the restoration to it of this hospital and its administration. The petition was referred to the military authorities at whose instance the legal status of the institution was made the subject of exhaustive inquiry, the result of which is embodied in the following summary written by an associate justice of the Supreme Court:

> The leper hospital is a public institution. It has all the *indicia* of such an establishment. The suffering public peculiarly affected are admitted therein; it is mostly supported by resources drawn from the public domain and contributed to this specific purpose by royal order; the barefooted Francsican friars who ministered there were simply agents of the Government, which agents were changeable at will; it is subjected to governmental inspections and, although it may be true, as claimed by their order, that the said friars have done great good in successfully soliciting and dispensing alms for the benefit of the hospital's suffering inmates, this circum-

stance, while adorning human nature and signalizing virtue, cannot, nor does it in the least, affect the governmental character of the establishment.

In consonance with its object and character it is recommended that the leper hospital be continued under governmental supervision.

In a subsequent investigation there was discovered in the public archives a letter from the provincial of the order referred to dated May 23, 1898, petitioning the Spanish Government to assume the administration of this hospital and its properties and provide for such form of administration as might be deemed most convenient for its interests in retaining the administration of said institution, which, it was explained, was assumed only through love for the unfortunate lepers, and that, whereas it had always proceeded with the utmost justice in all its acts of administration, it had been rewarded only by having all sorts of trouble and disagreement with the tenants, and was sure to have more in the future, and petitioning that in order to avoid such .troubles, the general Government would relieve it of the tedious administration of the property of said hospital.

In this way the relation of the American Government to San Lazaro Hospital estate was determined.

The vicissitudes of the project of establishing a leper colony can best be told by selections from old reports bearing on this subject. As early as 1902, the report of the Bureau of Health (then Board of Health) under the head of "The proposed leper colony" contained the following:

There are three leper hospitals in the Philippines, situated at Manila, Palestina, Nueva Cáceres, and Cebu, respectively. During the past year a beginning has been made toward taking a leper census of the Islands. This census is already quite complete for many of the provinces, and its results lead to the conclusion that the estimate of those persons who have heretofore expressed the belief that there were 30,000 lepers in these Islands is wide of the mark. It is believed that the total number will not exceed 10,000, and it may fall considerably below this figure.

The desirability of establishing a colony where persons in the early stages of leprosy can have their homes, cultivate the soil, and in general lead a free out-of-door life, instead of being practically imprisoned and compelled to pass their days in company with fellow unfortunates in the last stages of this horrible disease, has long been appreciated by both military and civil authorities. Efforts were made by the military government to find an island suitable for the establishment of a leper colony, and a military board reported favorably on the island of Cagayan de Jolo, after somewhat cursorily examining it. As satisfactory information was not given as to the supply of drinking water on this island, and as the accuracy of the board's report that there were but 200 or 300 inhabitants had been seriously questioned, a committee consisting of the Commissioner of Public Health, the sanitary engineer, and the Secretary of the Interior was apointed to reëxamine the island, and if it did not prove satisfactory to search for a more favorable one.

This committee reported adversely on the island of Cagayan de Jolo, on account of the entire lack of a favorably situated supply of drinking water, the absence of any port, and the presence in the island of some 3,000 Moros, whose removal would have been both difficult and expensive, and recommended the island of Culion, in the Calamianes group, on account of its healthful climate, rich soil, extensive cattle ranges, abundant water supply, good harbors, and small population. The present inhabitants are so few and have so little property that their removal, if deemed necessary, can be effected with little difficulty and at small expense.

An appropriation of $50,000 was included in Act No. 389 for the purpose of erecting a warehouse on Halsey Bay, building a road to the proposed site of the colony, and erecting superintendent's house, hospital, and 100 separated dwelling for lepers, the hospital and dwellings to be of bamboo and nipa palm, which the island of Culion produces in abundance. Unfortunately the cholera epidemic prevented the prosecution of this work, and the appropriation lapsed at the end of the fiscal year. A new appropriation was made in October, and it is hoped that the colony may be established and the inmates of the San Lazaro, Palestina, and Cebu lazarettos transferred to it during the coming dry season.

The committee appointed to select a site for the colony after inspecting all the places that had been recommended submitted the following report:

MANILA, P. I., *January 1, 1902.*

THE UNITED STATES PHILIPPINE COMMISSION.

GENTLEMEN: On December 10 a committee consisting of the Commissioner of Public Health, the sanitary engineer of the Board of Health for the Philippine Islands, and the Secretary of the Interior sailed on the U. S. S. *General Alava* to investigate the fitness of the island of Cagayan de Jolo for a leper colony. This island had been previously visited by a board of officers who reported in favor of its selection for this purpose, stating that the population numbered about 200 or 300 poverty-striken natives, who could probably be removed without serious difficulty, and that there was little property on the island, so that any property rights possessed by its present inhabitants could be acquired by the Government at very small expense.

A short stop was made at Calapan, in Mindoro, to investigate political conditions there, and another short stop at the island of Cuyo, where an unsuccessful attempt was made to secure a competent interpreter, in order that the committee might be sure of being able to communicate with the inhabitants of Cagayan de Jolo.

Cagayan de Jolo was reached on the morning of December 14, shortly before noon. An attempt was made to anchor at the nortwestern extremity of the island, near where the interpreter and United States representative were said to live. It proved impossible to find an anchorage, however, and the steamer was obliged to stand by while we landed and attempted to get in communication with the interpreter. The men whom we met on shore were all armed, and, while apparently not unfriendly, either could not or would not understand either Spanish or Tagalog. After great difficulty we gathered information to the effect that Capitan Mariano, the man whom we were seeking, lived to the westward behind a projecting point, which was shown to us. Returning to the steamer, we followed the coast line to this point and make a second landing. Here we found the people more inclined to be communicative, and Mariano's house, distant some 5 miles, was pointed out to us. We again returned to the steamer, but as thick weather, with heavy squalls, came on, we were obliged to give up the attempt to get in touch with the interpreter and run to the south coast of the island for protection.

During the night the wind changed and blew strongly from the southwest, and the vessel was obliged to get under way and run for the open sea. The following morning we returned to the vicinity of Mariano's house, but the sea was so rough as to make it impossible to lower a boat. We finally found a somewhat protected anchorage near the eastern extremity of the island, and landed three parties. One under the sanitary engineer, set out for the top of the highest hill on the island, in order to take bearings of all important points, and to verify the existence of certain bodies of water shown on the chart; another, under the Commissioner of Public Health, started directly toward the center of the island; and a third, under the Secretary of the Interior, followed a trail which showed conspicuously, crossing a range of hills to the eastward. The entire day was spent in exploring the island. It proving impracticable for any of the parties to reach Mariano's house, a runner was dispatched with a request for him to come overland and board our vessel.

The day's work conclusively showed that several small streams and one river indicated on the chart had no existence in fact, and that a lake which appeared on the chart near the center of the island did not exist; there being only a bog hole at the center of a somewhat extensive valley, into which surface water drained from all directions, but from which there was no outlet. This bog, we were informed, dries up completely during the dry season.

The day's work also showed that the number of the people on the island had been greatly underestimated by the board which had previously reported upon it.

At 8 o'clock that evening the interpreter, Mariano de Leon y Legaspi, came on board our vessel, and we had a long interview with him. This gentleman has resided in Cagayan de Jolo for eleven years and is thoroughly familiar with the island. He informed us that the Moro population numbered not less than 3,000 souls; that there were two important "datos," namely, Dato Dakulá and Haji Dato Hamil Tamya. There were also four other "datos," sons or nephews of the two above mentioned, who have no following as yet, and exercise little or no political influence.

It was ascertained that there were upon the island some 40,000 cocoanut trees in bearing, and that extensive areas were also planted in bananas. A small amount of land was planted with rice, and there were some 500 head of cattle, the number being strictly limited by the lack of any adequate water supply.

The Moros obtained their drinking water from shallow wells 6 to 10 feet in depth, which at the time of our visit contained from 1 to 2 feet of water, showing a pearly color and evidently containing mineral substance in some quantity. We were informed that during the dry season nearly all of these surface wells failed, so that it was necessary for many of the inhabitants to go from 5 to 10 miles for drinking water, and that during the height of the wet season the water in these wells became very foul from surface drainage.

Detailed inquiries were made as to the water supply of the island, and the fact was developed that there is at one point a pool some 24 yards in diameter known as Bojekukúk, which is very deep and discharges by a subterranean passage believed by the natives to connect with a small circular lake filled with fresh water, situated within a few hundred yards of the south coast of the island and separated from it by a solid rock. The surface of the water in this lake is approximately on a level with the sea, and the small pool above referred to is situated near the bottom of an extensive valley, so that even should the water from either of these sources prove suitable for drinking purposes and adequate in amount, an extensive pumping plant would be necessary in order to distribute it among the population of 8,000 to 10,000 souls, which is probably the low limit to be anticipated as the ultimate population of our leper colony.

Finally, it was definitely ascertained that Cagayan de Jolo had no port and that there was no good anchorage. The island is so small that heavy seas run around it and either break directly or back in upon every part of the coast line, which is throughout its entire extent fringed by a reef, in some places wide and in others narrow, but everywhere coming so near the surface as to cause a dangerous surf during heavy weather.

It is believed that the climate of the Island of Cagayan de Jolo is healthful and that its soil is fertile. But in view of the absence of any safe port or good anchorage, the lack of any adequate supply of fresh water which can be utilized without the incurring of a heavy expenditure, and the great difficulty and expense involved in acquiring the property rights of a population of 3,000 Moros and in removing them from the island, the committee decided unanimously and without hesitation that Cagayan de Jolo was not adapted to the needs of the contemplated leper colony.

On the following morning we accordingly sailed for Culion. A very severe storm was encountered and, after battling with it for a day and a half, we put into Puerto Princesa, Palawan, and remained there for twenty-four hours in order to allow the officers and crew of the *Alava* to secure much needed rest. We then continued our voyage to Culion, arriving there on the evening of December 17. We landed immediately, and the evening was spent in a conference with the lieutenant in command of the small garrison at present situated at the town of Culion, a small place of about 67 buildings, all but 7 of them being huts of bamboo and nipa palm. The estimated population of the town is 250 souls, of whom all but three families are poor day laborers.

The Island of Culion had been visited by the army board referred to, but they had confined their investigation to a tramp over the hill from the town of Culion to the barrio known as Baldat, and had reported that the island was suitable to the needs of a small colony, believing that the lack of suitable and extensive agricultural lands would prove an insurmountable obstacle to the establishment of a large one.

This board had failed to reach the extensive and fertile valley known as the Cogonal Grande (the great field), which occupies the central part of the island and sends side valleys down to the northeastern and southwestern coasts.

The Secretary of the Interior, having visited this valley in the years 1891 and 1892, had personal knowledge of its existence and extent, and an overland march was arranged for the following day in order that it might be fully investigated.

The early morning hours of this day were spent in examining into the water supply of the town of Culion. There is a fine spring which flows

19,400 gallons per day at the height of the dry season. This water is said to be of excellent quality. It is distant from the town about a quarter of a mile, and could be readily piped along the beach.

In order to avoid a 3-mile tramp over the hills we went to Baldat by boat. From that point a walk of three hours and a half brought us to a beautiful side valley which extends to the westward connecting with the Cogonal Grande, and to the eastward nearly to the coast. Ten years ago there were a number of houses in this valley, but at the present time there remains but one. The trail which we followed crosses a range of hills and at its highest point reaches an elevation of 850 feet. The descent from this point to the side valley above referred to is somewhat abrupt, and, while it would be practicable to build a carriage road along this route, it would be a somewhat expensive undertaking. The distance from Baldat to the side valley is approximately 6 miles. On the march from Baldat we crossed five fine streams of pure water, the fourth following along the side valley itself, and the fifth coming down the high hills immediately back of the single house above referred to.

After a short rest we pushed on to the Cogonal Grande, distant a mile and a half. The route which we followed could be made practicable for an Army wagon by simply burning off the dry grass and bridging two narrow dry gullies. The land is practically level all the way.

The Cogonal Grande itself is a flat valley, which was probably at one time the bed of a fresh-water lake. It slopes very gently from all sides toward the center, where there is a considerable area of low, swampy ground, suitable for rice culture. In this low ground a stream originated which joins the large streams flowing along the side valley above referred to.

The committee were agreed that the side valley and the Cogonal Grande afforded an ideal site for the proposed colony, and furnished abundant and suitable lands for agriculture and stock raising. A tramp of twenty minutes to the southward along the second side valley—partly open and partly overgrown with low bamboo—brought us to another fine stream of pure water, and the sanitary engineer followed up its bed for a sufficient distance to ascertain that it could be piped over the low divide into the Cogonal Grande. We were informed by the natives whom we took with us that this stream flowed continuously throughout the year, although with a somewhat reduced volume at the height of the dry season.

We were also informed that there was an extensive and safe harbor on the southwest coast of the island but a short distance from the point where we then were, which could be reached without crossing any hills. This harbor was said to be landlocked, and to afford a safe refuge during typhoons, although this information was in direct contradiction of the China Sea sailing directions, which state that this coast of Culion is fringed at a distance of 5 to 7 miles by dangerous reefs. We decided to investigate the practicability of reaching this alleged harbor, and, should the facts prove to be as stated, to request the captain of the *General Alava* to attempt to enter it from the sea. We accordingly made an early start on the following day. We reached tide water about 12.30, after a tramp of some 5 to 6 miles, during which we had descended about 150 feet with practically no lost distance, the ground along the entire route, with the exception of the last quarter of a mile, being so level that an Army wagon could be driven for the entire distance after the low bamboo had been cleared and the low grass burned. For the last quarter of a mile the trail runs along a side hill, and for a short distance through a nipa swamp.

We were assured that ships' boats could come up to the point which we had reached. It being evident that a road from this point to the Cogonal Grande would be shorter, and could be constructed at far less expense than could one from the town of Culion, we decided to request Captain Halsey of the *General Alava* to investigate fully the practicability of entering the alleged port. We accordingly marched that afternoon entirely across the island, the Secretary of the Interior remaining at Baldat to gather further information as to the population and resources of the islands, and the remainder of the party going on board the steamer, which sailed the following morning for the southwest coast. The investigations carried on by Captain Halsey and the other officers of the *General Alava* resulted most satisfactorily. They discovered a completely landlocked inlet which they entered for the distance of 4 miles, finding nowhere less than 17 fathoms of water. It was ascertained that they might have entered 1½ miles farther. Captain Halsey characterized the harbor as "grand," and Executive Officer Chase stated it was without exception the finest harbor he had ever seen in the Philippine Islands. Captain Halsey added that he would without hesitation take into it the largest battleship afloat. It was found that two fresh-water streams flowed into it, and a boat party was sent out to explore each. One of these parties reached without difficulty the point on the bank to which we had come on the previous day. The other, under the Commissioner of Public Health, found a still more favorable place for landing by following up a stream which had nowhere less than 6 feet of water until they reached an open grass-grown valley with high ground, affording abundant room for landing, town site, etc. There can be little doubt that this valley connects directly with the one along which we had come on the previous day, although there was not sufficient time to verify this fact.

On the following day the vessel returned to Culion, and the next morning a meeting of the property owners of the island was called in the tribunal of the town. They were interrogated as to the extent of the population, the number of buildings and area of cultivated land outside of the town, and the number of cattle on the island, were informed as to the object of our trip, and were further informed that should it be necessary to take their property adequate compensation would be given them.

It appears that the population of Culion numbers 800 to 1,000 souls, of whom more than one-half are Tagbanuas, and harmless wild people who have no fixed abode and no property. The owners hereinafter listed for the most part are poor laborers, who were formerly contented with a daily wage of 5 cents Mexican, and are now satisfied with a peseta.

The following is a list of the property owners of importance, with a statement of the property which they claim to own. In no case does there exist any written title to land claimed, and in each instance the land is claimed only by right of actual possession:

Juan Palanca.—Nationality, Chinese. Claims 200 hectares of land, of which only about 50 hectares are at present under cultivation. Has worked this land for fifteen years. Has 10 hectares in sugar cane and 10 in rice. Also 200 cocoanut trees, 100 cacao bushes, and about 20 orange trees. One house of light material, and is constructing a house of solid material. One cane mill said to be worth 20 pesos.

Doroteo Rodriguez.—Claims 15 to 20 hectares of land, about 12 of which are under cultivation in rice. Has about 50 cocoanut trees, 100 cacao bushes, and 50 head of cattle. Also two houses of light material, estimated by him to be together worth 100 pesos.

Estaphanio Rodriguez.—Claims 56 hectares of land. Has about 300 cocoanut trees, 30 cacao bushes, oranges, mangoes, bonga, and nanca, 40 trees of the latter. Has house property which he estimates to be worth 90 pesos, and about 490 head of cattle, including 90 carabaos.

Evarista Manlobi.—Claims a very small tract of land on Culion; more on a small island near by. The latter planted with cocoanut trees, of which she has 540. Also, some 500 small cacao bushes and a few other fruit trees. Has one small house for the caretaker on her premises.

Ignacia Pavero.—Claims 7 hectares of land, 20 cocoanut trees, and 4 carabaos.

Catalina Abreng.—Claims 8 hectares of land. Has 70 cocoanut trees and 5 carabaos. Also two houses estimated to be worth 25 pesos each.

The persons here listed were stated to be the large property holders of the island. It was stated that some 20 people claimed to own land, but all of the others claimed only insignificant amounts. It will be seen, therefore, that outside of the little thickly peopled area covered by the town of Culion, there are claimed but approximately 290 hectares of land, and this amount is claimed only by virtue of actual possession. On this land there are about 8 small houses. The other property claimed to be owned consists of 540 cocoanut trees, 730 cacao bushes, a few oranges, nanca, and other fruit trees, and 549 head of cattle.

The town of Culion is built on a rocky promontory which juts into the sea. The buildings, of which there are some 67, are placed close together. All but 7 of these are huts of bamboo and nipa, estimated to be worth approximately 20 pesos each. The remaining houses are of strong material, and the following is a list of the owners, with values as estimated by Lieutenant Young, in command of the garrison at the place:

	Value.[a]
Evarista Manlobi, 1 house	$600
Juan Palanca, 1 house	1,500
Señora Sandoval, 2 houses (1 of nipa)	450
Antonio Sandoval, 1 house	1,200
Doroteo Rodriguez, 1 house	350

There remain to complete the list an old convent of little value, at present used as a barracks, and a strong stone fort within which is situated the church.

It is confidently believed that nowhere else in the Archipelago can there be found an island so healthful, extensive, and fertile, which has so small a population. It is doubtful whether there would be any necessity for disturbing the little town of Culion, as it will be some miles distant from the proposed site for a leper colony, and likelihood of intercommunication between its people and the lepers would be small.

It is recommended:

(*a*) That all the land in the island of Culion proper, which does not lie within a radius of 3 miles of the church in the town of Culion, be set apart for a leper colony, and that persons who have a possessory title to cultivated land within the area so set apart be given a just compensation for the resulting loss to themselves.

(*b*) That no nonleprous person be allowed to live within the area set apart for the leper colony without the written permission of the superintendent of the colony, such permission to be granted only to persons whose presence is useful or necessary in the conduct of the affairs of the colony.

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[a] Mexican dollars.

(*c*) That an accurate census of the population of the Island of Culion proper be taken immediately, and that no person not a resident at the present time be allowed to take up his abode there without the written permission of the superintendent of the leper colony.

(*d*) That no person be allowed to continue to reside in the town of Culion after June 1, 1902, except those employed in connection with the leper colony and the members of their families.

(*e*) That just compensation be allowed to persons thus obliged to leave the town of Culion for the house property, if any, which they own there, and that said house property shall become the property of the colony, unless the owners are able and prefer to dispose of it to other residents of the town, in which case no compensation shall be allowed them.

(*f*) That the visiting of any part of the Island of Culion outside of a circle with a radius of 3 miles, drawn from the spire of the church of Culion as a center, by any nonleprous person be prohibited, unless such person has the written permission of the Secretary of the Interior or the superintendent of the leper colony.

(*g*) That a road be constructed connecting Halsey Bay with the Cogonal Grande and its principal side valley.

(*h*) That a house for the superintendent of the colony, one for doctors and hospital employees, a hospital for lepers, and a suitable number of houses to accommodate 10 patients each, be constructed in accordance with plans prepared under the direction of the Commissioner of Public Health and approved by the Commission, and that said buildings be furnished with adequate water supply.

(*i*) That horses, carabaos, cows, and bulls be purchased for the colony, and that it be made obligatory on all owners of other cattle to remove them from the island on or before the 1st day of June, 1902, in order to prevent the running together of herds belonging to the colony and those belonging to private individuals.

(*j*) That land be set apart for every leper able and willing to cultivate the soil, and that he be furnished with the necessary seed and agricultural implements.

(*k*) That a storehouse be constructed at a suitable point on Halsey Bay, at or near the beginning of the road leading to the Cogonal Grande.

(*l*) That the houses constructed for the accommodation of male and female lepers be in two widely separated areas, and that communication between the two sexes be absolutely prohibited.

(*m*) That the father, mother, wife, brother, sister, or children of a leper, or other near relative, if there be no father, mother, wife, brother, sister, or children, be allowed to go to Culion and establish himself or herself in a nonleprous town on a site to be selected by the superintendent of the colony, persons who desire to build being afforded opportunity to do so, and persons desiring to cultivate the soil having assigned to them for that purpose such tracts of land as the superintendent of the colony may deem advisable. All the relatives of each leper to leave the territory set aside for the colony within one month after the death of such leper, the land cultivated by them to remain the property of the colony, and any buildings erected by them to become the property of the colony on their departure.

(*n*) That the Board of Health for the Philippine Islands be authorized and directed to prepare further rules for the government of the colony, subject to the approval of the Secretary of the Interior.

(*o*) That the inmates of the lazarettos at Manila, Cebu, and Palestina be removed to the leper colony at the earliest practicable time, so that the buildings at present occupied by them may be put in a sanitary condition and used for other governmental purposes.

(*p*) That a law be enacted providing for the control and suppression of leprosy in the Philippine Islands, and for the setting aside of the island of Culion for a leper colony, said law to embody such of the above suggestions and such additional provisions as the board of health for the Philippine Islands may recommend and the Philippine Commission approve.

Very respectfully,

DEAN C. WORCESTER,
Secretary of the Interior (for the Committee).

It will be observed that the report of the committee was submitted by the Secretary of the Interior to the Commission on January 1, 1902. It was the purpose of the Government to begin the work of removing the settlers of the island and to begin building operations early in the year named but a temporary delay was caused by an epidemic of plague in Manila which required the presence of the sanitary engineer.

By the time that all danger from the plague was over, Asiatic cholera made its appearance, the first case occurring March 20, 1902. The epidemic continued all the year and not only demoralized business but served to reduce the work of the Government to administrative procedures and cholera measures only.

The report of the sanitary engineer who took up the work of getting the colony in operation is dated September 1, 1903, one year and eight months after the committee on selection of a site had reported to the Commission.

His report is as follows:

SIR: In compliance with your request of July 6 for a report covering the operations at Culion Island since September 1, 1902, I have the honor to submit the following:

On or about September 24, 1902, I was verbally ordered to make an estimate of the amount of money which it would be advisable to obtain for the quarter ending December 31, 1902, to be used in building a leper colony at Culion. A previous estimate had been submitted by me in March, 1902, but was not accepted by the Commissioner of Public Health, as it was considered excessive. I carefully revised my work, but having no additional knowledge, arrived at the same result, and sent in the same estimate on September 26. In November orders were given me to go to Culion prepared to start the work. From one cause and another the party did not get away until December 10, 1902. This extra time enabled me to obtain the more essential supplies. Under the guidance of Mr. Worcester, Secretary of the Interior, a visit was made to the selected site of the leper colony, where he gave me final instructions as to what he desired.

The estimate was for 100 dwelling houses, but he stated that 1,000 would be necessary and that I was to plan for that number. The sites of the principal buildings were selected and the general street and lot plan decided on.

On December 18 the construction party was landed on a point of land at Halsey Harbor, with 6 or 8 laborers, natives of Culion. They all left within three days. It was an unsuitable situation for a camp, and we suffered great inconveniences.

On January 13, 1903, 59 laborers and 2 foremen arrived from Cuyo. Up to this time practically nothing had been done. We had no boats and could not get anywhere through the brush. One ship's boat was sent in January and in the same month the natives, under the supervision of Mr. Louis J. De Puy, the general foreman, constructed several flatboats. A fish corral was at once built to obtain a supply of fresh fish for the camp. A wharf was started and was extended 210 feet to deep water. It was then attempted to saw out planks for a flooring for the wharf, but this task was found entirely beyond the skill of the natives, and it was finally abandoned as hopeless. At the land end of the wharf a space was cleared and graded and a warehouse built. Up to this point the native labor had given unexpected satisfaction, as the work was all within a small area and the entire force could be supervised by the Americans. It at last became necessary with an increased force to divide it over different parts of the work. One force was kept at the first camp, another was sent to make nipa, and a third was sent to clear the way for the intended road. Under the native foremen the laborers proved almost valueless and, except when an American was present inspecting, almost no work was done. The work was laid out by piecework, fines were imposed, men caught loafing were discharged, but very little improvement was made, and a great deal of discontent was caused. These natives, either foremen or laborers, never gave any information about each other, and in consequence a great many times good men must have been punished with the guilty. The foremen served for nothing more than interpreters and never used their intelligence and energy except in rascally schemes to use the laborers for their own personal profit. Slowly these things were brought home to the guilty parties and they were discharged, although they were the only natives in the force with any ability. The more energetic laborers were promoted to low-grade foremen, but in all but one case it spoiled the good laborer and made a worthless "capataz."

During the month of March the work near the first camp was practically finished and the force was moved up to the intended site of the leper colony, and the collection of materials and the construction of one house was begun. Our real troubles began at this point. The men detailed to obtain supplies were necessarily scattered through the woods in small parties under the charge of native subforemen, and once out of sight in the dense underbrush it was almost impossible to keep track of them and they would do no work. I took small gangs out on the different classes of work and found out what it was just to expect, and the work was laid out by piecework. This caused constant trouble in the force, as did the reduction of subforemen to laborers and the appointment of other foremen, the docking of time from gangs, and the discharging of such men as were caught in the act of loafing.

In accordance with promises made them when they came, over 100 men were allowed to return to Cuyo on March 19, and from that time on it was impossible to swell the force up to any great extent, as the men were discontented for several reasons.

The regular ration should be increased, and I recommend that the Constabulary ration be allowed.

The Filipinos are accustomed to having their women with them, and they soon get lonesome and discontented without them. Provision should be made to allow them to bring their families with them. They are not accustomed to having any money, or what little they do have they want to spend at once. With a very little money they do not want to work.

The roadway cut out from the boat landing to the camp is 4⅛ miles long and can be made most satisfactory, indeed, as the grades will be very small. However, there will be numerous bridges and culverts, and at the boat landing an extensive and costly work must be done. There will be seven bridges exceeding 60 feet in length, but in some cases, at least, it will be perfectly practical to break the span by a center pier. There will be four smaller bridges and an uncertain but great number of culverts. For the convenience of the colony several other large bridges should be built near the site of the colony. Except some iron and cement, sufficient and satisfactory materials can be found close at hand for the constructions. Sufficient road ballast can be obtained readily and cheaply although the rock is not of very suitable character. The cost per mile of macadam road should be below the average; the cost of maintenance should be above.

One house has been constructed with the help of the common laborers. It cost considerably above the estimated figure, was done very slowly, and was not very satisfactorily finished. Besides this an excessive amount of supervision was needed. Skilled carpenters should be sent to do this work.

The original estimate was for 100 dwellings, while present instructions are to build 1,000. I believe enough timber can be obtained for this number, though naturally it must be obtained in part from greater distances, but the supply of nipa on the island will prove inadequate.

A heavy storm occurred in June and badly racked the one house constructed. This house was more strongly braced than the ordinary native house, but was not braced perfectly in accordance with the theory of bracing. At every point where theory had not been put in practice the house showed weakness. Pins 1 inch in diameter made of hard native wood were sheared off clean and sharp by the pressure of the wind. Posts planted 4 feet or more in the ground were forced out of plumb, and during heavy gusts that occurred the rafters of the roof would deflect at centers from 3 to 6 inches and the entire building would warp. Orders had been given to place the floors of the buildings 7 feet above the ground, but in my absence this building was started in accordance with the plans and the floor was placed but 4 feet above the surface. It is possible that with 3 additional feet of leverage the wind might have done more damage.

These buildings should not be placed at any greater height than is essential for health for the reason stated above and for economy in construction. Native methods of bracing should not be tolerated, but all the buildings hereafter constructed should be braced in the most approved manner, and skilled labor, at whatever cost, should be employed. In addition a sufficient number of Americans should be employed to keep a close watch on the laboring force sent out to collect materials.

The distance from the colony site to water transportation on the north shore is 2 miles less than that of the route at present selected. A road to the northern bay is perfectly practical, but lies through rougher country, and the first cost of it would probably not differ very much from that of the longer road. Maintenance would be less and length of haul reduced one-half. The estero or river at which the road would end is and can be made much preferable to that of the south.

The visible surface-water supply at the colony site is inadequate for the population that it is estimated must be supported, even using the lowest estimate ever given—5,000 lepers. One stream of crystal clean and beautiful water had a very constant surface flow of about 55,000 gallons per twenty-four hours during the entire dry season. Another stream of about 30,000 gallons per twenty-four hours is one-fourth of a mile to the west of the first mentioned. These two streams continued with a surface flow throughout the entire dry season of this year, which is reported by the natives of the island to have been of unparalleled dryness. I am further strongly of the opinion that subsurface flow would show considerable increase in the above figures. This year it was impossible to put the belief to the test, as the Insular Purchasing Agent was unable to supply the requisite machinery for the purpose.

A well was sunk to develop subsurface water, if possible. This was fairly satisfactory, but again the lack of proper machinery left the matter in some uncertainty. A thin water-bearing strata of sand was first passed through; vigorous bailing kept this under control until at a depth of 7 meters a larger strata of sand was broken into, when the water poured into the well in such volume that it was useless to attempt to control it. The level of the water rapidly rose to about 10 feet in depth, and then slowly 2 feet higher. Pools of fresh, sweet water in the beds of dry streams throughout the different lateral valleys, show that there is subsurface water at many points. To collect and utilize this water from many different points would be very expensive, and unless some sufficient subsurface supply can be obtained at one point, it will be impracticable to place the entire colony in this valley. The northern side of the Island of Culion is much better supplied with water than is the southern.

At the town of Culion there is one large spring near the shore, which, however, showed signs of failing toward the end of the dry season; also one small spring back of the town. At some distance to the south of the town are other springs, and yet farther to the south at the hacienda of Señor Sandoval is a very fine stream of water of considerable volume even at the end of the dry season. At Baldat there are streams, which had a surface flow during the entire dry season, their measurements, however, were taken so late in the year that it is probable some at least of the streams were affected, though not to any great extent, by showers that had already occurred. The most eastern stream had a flow of 67,000 gallons per twenty-four hours; the next to the west, 5,000 gallons; the next had pools of water, but no flow; the next and most western stream—1 mile from the most eastern—flowed 30,000 gallons. In addition there are several springs and every indication of subsoil water.

Some distance to the west of Baldat is a narrow valley of about 3 miles in length. Through this valley flows an excellent stream of water having at all seasons a volume of about 43,000 gallons per twenty-four hours. Still farther west is the hacienda "Onisan," owned by Señor Palanca. There are several streams of water on this property, which is very large. One of these streams was flowing 24,000 gallons at the end of the dry season, and without measurement I judge the other to be flowing a trifle more. There was another stream which could hardly be said to be flowing, but was a continuous chain of unstagnated water. The main stream was but a thread of flowing water, but Señor Palanca stated that never to his knowledge had it been so small, but that usually it flowed a good stream of water. Subsurface water is found at a depth below the surface of 3 meters.

To the southwest of this place is the hacienda of Señor Mayo. It is a small valley but has two very fine streams, which, however, I did not measure.

If a change of site of the leper colony is decided on, along this northern shore will be found a sufficient supply of suitable timber for the construction of all the houses desired. A launch would probably prove very useful, and as the waters are practically landlocked, it would not need to be a large one.

The land transportation problem would be much simplified by such a change, and the separation of the sexes could be much more effectively done by building at separated points where water could be obtained.

The present site is beautifully located, having fine, natural drainage, beautiful water, large stretches of open country, and almost always a refreshing breeze; but in spite of all these facts, the reputation of the place as being unhealthful was fully sustained as the rainy season approached. Almost the entire force, both office and laboring, was taken sick, and the same was true of the guards and prisoners sent down from Bilibid. So general was the sickness that it must have been caused by the water supply, and yet this could not possibly have been polluted from human sources. The water supply should be passed through a sand filter, and the same is probably true of most natural supplies in the Tropics. Malarial fever was the most prevalent disease, but there were some cases of beriberi and a few cases of severe cramps, which left the patients very weak and with small power of recuperation. There were some mosquitoes, but not many.

It is not impossible, but it appears to be impracticable, to obtain one water supply sufficient for all the persons to be sent to the island.

I therefore recommend that the colony be built in settlements and be based on the readily obtainable water supply. While not desirable in all respects, this arrangement has many good features to recommend it.

The disbursements to June 30, 1903, from the appropriation for the leper colony, Culion, Act 490, have been about $7,000 United States currency. An exact statement cannot be made, as all June accounts have not been received, nor a complete statement from the Insular Purchasing Agent.

The distribution has been as follows:

	U. S. currency.
Salaries	$1,658
Wages	1,654
Supplies, equipment, and miscellaneous	3,688

The high proportion of salaries to wages is due to the fact that office force was kept of necessity while labor could not be obtained.

Particular attention is called to wages in connection with work accomplished. Lack of results was due to lack of labor. Much was accomplished judged from the basis of wages paid.

Very respectfully,

H. G. Osgood,
Sanitary Engineer of the Philippine Islands.

The Commissioner of Public Health,
Manila, P. I.

The inlet referred to in the report of the Secretary of the Interior was later named Halsey Harbor after the captain of the steamship *Alava*, mentioned in the report. After some development work had been done at the Halsey Harbor site it was finally abandoned on account of insufficient water. For a time the Bureau of Agriculture maintained a cattle ranch at this same place, but finally abandoned it.

The site of the former townsite of Culion was finally chosen for the leper colony. The property of the natives was purchased at a fair compensation as recommended by Secretary Worcester.

Dr. Charles F. de Mey, formerly captain and assistant surgeon of the United States Volunteers, who had been serving in the capacity of medical inspector for the Board of Health, was appointed as medical officer of the colony in order to prepare for the reception of patients.

While the progress of the work of getting the island ready for occupancy was subject to vexatious delays caused by the labor, transportation, and other problems, it was carried on without interruption after it was begun.

In his report for 1906 the Director of Health was able to say under the title of "Leprosy" and the "Culion leper colony" that:

> It becomes the very pleasant duty of the undersigned to report that during the year the first steps were taken, which, when completed, give promise that leprosy may be finally eradicated from the Philippine Islands. For the past several hundred years the care of those who were unfortunate enough to contract leprosy has received considerable attention in the Philippines, but a careful review of the history shows that this work was more or less of a charitable nature and was not carried out in such a way that the final disappearance of the disease could be hoped for. It was the practice to admit to leper hospitals those lepers who were unable to earn a living or who had no one to provide for them. This left many lepers at large who had not become public charges, and in consequence there was ample opportunity for the disease to spread indefinitely. It was for the purpose of providing complete isolation that plans were made almost at the inception of the present civil government to set aside an island for this purpose, but it was not until this year that they had advanced sufficiently far so that a start could be made toward assembling lepers at that place.
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> The construction of the Culion leper colony, situated on the Island of Culion, which has been set aside for this purpose, reached a point during the month of May at which 800 lepers could be cared for. Of this number about 500 are already at Culion. The remaining 300 vacancies will be filled as soon as funds provided by the current appropriation bill for the purpose become available.
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> It is variously estimated that there are from 4,000 to 5,000 lepers in the Islands. It is furthermore estimated that it would require an expenditure of about 50 centavos (25 cents United States currency) per capita per day, by the Government for subsistence, material for houses, clothing, transportation, administration, etc., to maintain them all. In round numbers, an annual outlay of about ₱800,000 ($400,000 United States currency) would be required. The Government at the present time could scarcely support a fixed charge of this size.
>
> If the immediate segregation of all the lepers in the Islands would be an absolute guarantee that no further cases would occur, it would no doubt be advantageous from a business standpoint to borrow money and segregate them at once, because in a few years the charge would be entirely eliminated, but in view of the fact that there is not sufficient medical evidence to the effect that segregation would cause the complete disappearance of

the disease a loan for this purpose would scarcely be justified. Fortunately, however, the geography of the Islands is such that the present finances and the demands of practical medicine can both be met to a reasonable degree.

The present plan is to move all the lepers from those islands which are well isolated, and at the same time have only comparatively few victims.

In this way a large amount of territory or area can be freed of lepers at once, and the principal source of infection being removed, there should be few persons attacked in these sections in the future, and the few cases that do occur can be immediately removed. It is contemplated that only such persons shall be declared lepers as by microscopical examination are found to have the bacilli of leprosy in their tissues.

The lepers from the Islands of Mindoro, Masbate, Romblon (which includes Tablas and other islands under the same provincial government), Siquijor, Oriental Negros, Occidental Negros, Palawan, and Cuyo have already been moved. One noteworthy fact was observed while the lepers were being collected from the islands mentioned above, viz, only about one-half of those who were previously reported as lepers were, on careful examination, found to be afflicted with the disease. If this same proportion should be maintained in the remaining islands the number of actual lepers would be much smaller than has been estimated and the solution of the leprosy problem would not be nearly so serious a matter as first appearance indicated.

The question of the lepers contributing something toward their own support has received most careful attention, but on closer observation of this matter it has been ascertained that not much assistance in this direction can be expected. The disease soon produces such contractions of the limbs, destruction of tissues, losses of fingers and toes, nervous involvements which result in loss of muscular power, and general debility, that only a small proportion of them is capable of performing that amount of manual labor which would be required by the agricultural operations which would result in supplying food for themselves. While there are many lighter occupations which a fair percentage are capable of engaging in, yet the articles which they would produce would not be of a kind that would be of use to themselves, and the repugnance which the public has for things handled by lepers, even though rendered safe by sterilization, would preclude the possibility of selling them at a profit. Then again, so many of them are entirely bedfast, and the wounds and ulcers of others require so much attention, that a good proportion of the services of those not yet so badly afflicted must be devoted to those not so fortunately situated. Domestic duties, cooking, making clothes, keeping house, cleaning, and taking care of streets, making repairs to buildings, etc., require the entire time of many more, so that the sum total of the remaining effective labor is very small.

The question of raising cattle is now being considered. It would appear that this should be a light occupation in which they would be successful. On account of the fact that cattle do not contract leprosy, that they could be slaughtered by nonleprous persons, and that the meat is necessarily cooked before being eaten, it would seem that the public would not object to such meat being placed upon the market.

The actual collection and transference of the lepers who are already at Culion did not present as many difficulties as was at first anticipated. On account of the fact that it was desirable, for administrative reasons, to reduce the number of places at which lepers were kept as soon as possible, it was decided to remove those lepers who have heretofore been maintained at the San Lazaro Leper Hospital in Cebu and discontinue the latter institution. Accordingly, May 22, 1906, Medical Inspector Goff and the undersigned proceeded with the coast guard cutters *Polillo* and *Mindanao* to Cebu. With the assistance of Medical Inspector Pond, who was acting president of the provincial board of health of Cebu at that time, the lepers were transferred by lighters from the leper hospital to the boats. A total of 365 were distributed between the two vessels. The vessels sailed from Cebu May 27, and an uneventful trip was made to Culion, the latter place being reached on the afternoon of May 28. The medical officer in charge of the colony had made all the necessary arrangements to receive the lepers. Four sisters of charity, belonging to the order of St. Paul de Chartres, were already on duty at the hospital, to act as nurses for those who required more or less medical attention. A priest of the Jesuit order, Father Valles, was already stationed at the colony and aided in receiving the lepers. The latter were very much surprised and delighted with their new quarters and expressed themselves as being thoroughly satisfied with the provision that had been made for them.

The present colony consists of about 125 new nipa houses, each of which is large enough to accommodate from 5 to 7 lepers. These houses have been built on regular street lines, so that a regular town has resulted. The site of this new town is located on a high point which slopes in nearly all directions to the sea, the highest portions being about 150 feet above sea level, the drainage, in consequence, being excellent. A reservoir is located at a height of over 230 feet above sea level, and water from a spring is pumped up to it by a gasoline water pump. From there, the water flows to all parts of the new town through the system of water pipes which has been laid. The necessary bathrooms, modern flush closets, and wash places for clothes have been provided. A complete sewage system, which empties into the sea after passing through septic tanks, has been provided to carry away all sewage. Musical instruments have been provided, so that a band of 40 pieces can be organized.

The old town of Culion, of which a number of good houses yet remain, which were purchased from former residents, affords buildings for a presidencia or town hall, and places of residence for the presidente and concejales. An excellent stone church, which had already been built in Spanish times, is now in good repair, and can be used by the inhabitants of the colony.

The lepers are given all possible liberty, and are, to a large extent, controlled by regulations which they themselves made. They are allowed to punish offenders against their own regulations in any manner they see fit. In order to give them a proper form of government they were permitted to elect their own presidente and 10 concejales. A police force composed of 12 men has also been organized, and it is their duty to see that the town is kept in good sanitary condition as well as to make arrests of offenders against their own ordinances.

Quarters have been provided for nonleprous employees on the other side of the hill from the colony and about a quarter of a mile distant. The director of the colony lives in a house which is situated across an arm of the bay, about 2 miles distant, and can readily be reached by the launch which is kept at the colony.

After the lepers from Cebu had been transferred it was next decided to remove those from the islands of Mindoro, Romblon, Masbate, Siquijor, Negros, Palawan, and Cuyo. Advantage was taken of the fact that about the middle of June the Secretary of the Interior was making an inspection of the Province of Mindoro, on which trip he circumnavigated that island. On account of his calling at many small ports, Medical Inspector Goff was detailed to accompany him, with instructions to collect all lepers on the island, if practicable. It was not possible to collect them all at once, but the work progressed sufficiently far so that after the Secretary of the Interior returned to Manila it was only necessary for Doctor Goff to call at two ports in order to secure them all. In the meantine, instructions were sent to the local health officials of the other islands directing them to assemble all lepers in their respective provinces at one seaport. This was fairly well carried out, and Medical Inspector Goff, who was in charge of the collection of the lepers, was able to make a quick trip, calling at the ports of Romblon, Masbate, Capiz, Dumaguete, Bacolod, and Cuyo. He arrived at Culion on the evening of July 4 with 125, only 1 leper having died en route. On the previous trip from Cebu to Culion no deaths took place. In another portion of this report attention has already been invited to the fact that not nearly all the persons who were alleged to have leprosy were found to be really afflicted with this disease. Medical Inspector Goff had with him a complete microscopical outfit, and whenever any cases were presented in which the diagnosis was doubtful, a microscopical examination was made, and unless the leprosy bacilli were found the case was not taken. In this way the number was reduced to at least one-half of that originally reported.

In 1908 the Legislature made sufficient funds available to transfer all of the lepers to Culion, but owing to the impossibility of obtaining a sufficient amount of labor to build the necessary quarters this was not attempted until 1911.

The report for the year 1908 stated that:

Work on the project which had for its object the segregation of every leper in the Philippine Islands at Culion was actually commenced during the month of May, 1906. Up to that time the relief extended to lepers was more in the nature of aiding the individual leper; the larger project of exterminating this disease from the Archipelago was never seriously undertaken. In view of the conflicting opinions as to whether segregation could accomplish this, and the question of financing so large a project, considerable delay was caused in starting this undertaking.

The actual work of collecting the lepers and caring for them after they are collected still presents obstacles, many of which at times seem unsurmountable. Regardless of what the opinion of people may be in the abstract, when it comes to persons who will do actual work of transporting them to a seaport, providing their subsistence, aiding them aboard the steamers, making the necessary medical examination, attending to their needs, experience has again and again demonstrated that they are most difficult to find and only persons with superior courage can be induced to continue at the work. One of the greatest aids has been the enactment of Act No. 1711, entitled "An Act providing for the apprehension, detention, segregation, and treatment of lepers in the Philippine Islands."

This Act is as follows:

"AN ACT PROVIDING FOR THE APPREHENSION, DETENTION, SEGREGATION, AND TREATMENT OF LEPERS IN THE PHILIPPINE ISLANDS.

"*By authority of the United States, be it enacted by the Philippine Commission, that:*

"SECTION 1. The Director of Health and his authorized agents are hereby empowered to cause to be apprehended, and detained, isolated, segregated, or confined, all leprous persons in the Philippine Islands, and upon application of the Director of Health it shall be the duty of every Insular, provincial, or municipal official having police powers to cause to be arrested and delivered to the Director of Health, or his agents, any person alleged or believed to be a leper, and it shall be the duty of such officers to assist in the conveyance of any person so arrested to such place as the Director of Health or his agents may require, in order that such person may be subject to medical inspection, and such other procedure as may be necessary to establish a diagnosis, and thereafter to assist in removing such person to a place for detention, treatment, isolation, or segregation, if so required by the Director of Health or his agents: *Provided,* That all protests and petitions shall be given careful consideration and if the diagnosis is questioned, no person shall be permanently removed to Culion leper colony, or other place of segregation or detention, until the diagnosis of leprosy has been confirmed by bacteriological methods. Whenever the detention, treatment, isolation, or segregation of leprous persons shall involve the security of property and money belonging to or held by said leprous persons, the provincial treasurer, or such person as he may designate, shall act as guardian pending the appointment of a guardian by the Court of First Instance having jurisdiction in the province in which such person resides.

"SEC. 2. Whoever shall knowingly detain or harbor on premises subject to his control, or shall in any manner conceal or secrete, or assist in concealing or secreting, any person afflicted with leprosy, with the intent that such person be not discovered or delivered to the Director of Health or his agents, or who shall support or assist in supporting any leper living in concealment, shall, upon conviction, be punished as hereinafter provided.

"SEC. 3. It shall be the duty of every police officer or other peace officer having reason to believe that any person within his district is afflicted with leprosy to report the fact forthwith to the district health officer of the district in which the case occurs. Any police officer or other peace officer who shall willfully fail to comply with the provisions of this section shall, upon conviction, be punished as hereinafter provided.

"SEC. 4. The Director of Health is authorized to cause to be established hospitals and detention camps at such places as may be necessary, and where such hospitals and detention camps are established he may order the treatment of leprous patients in the incipient stage in order to attempt a cure, and he may discharge such patients as he shall deem cured or free from leprosy, and send to a place of segregation and isolation all such patients as shall be considered by him incurable or capable of spreading the disease of leprosy. The Director of Health may permit any duly qualified and reputable physician to engage in the treatment of lepers or any person supposed to have leprosy: *Provided,* That such treatment shall be under the conditions and regulations prescribed by the Director of Health. The Director of Health or his agents may require from patients such reasonable amount of labor as may be recommended by the attending physician and the Director of Health may further make and publish such rules and regulations as he may deem advisable for the amelioration of the condition of lepers.

"SEC. 5. Voluntary helpers or friends living with lepers segregated under orders by the Director of Health or his agents shall be under the control of the Director of Health for a reasonable time and may be isolated from those free from the disease.

"SEC. 6. Any person violating any section, or part thereof, of this Act shall, upon conviction, be punished by a fine not to exceed two hundred pesos, or imprisonment for not to exceed six months, or both, in the discretion of the court.

"SEC. 7. The public good requiring the speedy enactment of this bill, the passage of the same is hereby expedited in accordance with section two of 'An Act prescribing the order of procedure by the Commission in the enactment of laws,' passed September twenty-sixth, nineteen hundred.

"SEC. 8. This Act shall take effect on its passege.

"Enacted, September 12, 1907."

The practice of making a careful microscopical examination of each case has been faithfully carried out, and no doubt is largely responsible for the confidence which is displayed in the diagnoses made by the medical officers of this Bureau.

The attitude of the people of the Islands as a whole toward segregation has been most gratifying. There is probably no place where family ties are closer than in the Philippine Islands. In spite of the fact that it has frequently been necessary to separate husband from wife, mother from child, brother from sister, friend from friend, they resign themselves to their fate and in addition frequently aid the representatives of the law whose duty it is to carry out the segregation, when it is explained that such action is necessary for the good of the many. With the exception of a few isolated instances, the collection of the lepers has been carried on without any marked opposition or disorder. The only serious accident is that which occurred at Malitbog, Leyte, at which place two lepers became involved in a quarrel, as a result of which one was fatally stabbed. However, quarrels of this kind are not confined to lepers, and scarcely can be said to be connected with the question of segregation.

A frequent experience perhaps worthy of mention is the practice of many municipalities presenting their insane, blind, cripples, and other incurables who have become public charges, for transfer to Culion. These, of course, can not be taken care of upon a leper island, but when they are not taken away much surprise is often shown.

The Provinces of Mindoro, Masbate, Romblon, Capiz, Iloilo, Antique, Oriental and Occidental Negros, Samar, and Leyte have already been gone over two or more times, and with the exception of a few isolated cases, may be said to be free of lepers. The Provinces of Cebu, Bohol, Ambos Camarines, Albay, Batangas, Tayabas, Sorsogon, Benguet, Lepanto-Bontoc, and Ilocos Sur have been gone over once, but are not yet regarded as being free of lepers, and they will necessarily have to be searched over one or more times in the future.

The present Legislature has made ample appropriation for continuing the work during the coming fiscal year along the lines mapped out by the Philippine Commission during the year just closed.

At the colony proper much work was accomplished, but it has not yet even commenced to assume the appearance it is hoped it will have when the permanent improvements have been installed. The constant idea has been to make the colony, at least temporarily, habitable in the shortest possible time for the total number of lepers in the Islands, so that the opportunities for contracting the disease may be reduced to the smallest limits, and the drain on the resources of the Islands decreased as soon as possible. This plan also has the advantage of keeping the Bureau informed as to approximately how many lepers will have to be cared for at Culion for many years to come, and thereby makes it possible to regulate the extent and character of the permanent improvements to be made.

The Bureau of Health has not only provided all of the medical care and attendance required, but has carried on the construction work as well. Even construction work in the Philippines under the direct charge of the technical bureau of the Government created for that purpose is attended with many difficulties, such as lack of labor, skilled superintendence, difficulty of obtaining supplies, torrential rains, and many other obstacles; but it sinks into insignificance when compared with construction work on a leper island, that has a steamer call only about once a month, and where labor goes with fear and trembling, often deserting in a body, and where trained superintendence is scarcely obtainable. It is for this reason that particular credit is due to the medical and other officers connected with the Bureau of Health for the results which have been obtained. The construction work done at Culion will compare favorably in character and cost with that done elsewhere.

A reinforced-concrete warehouse has been completed and a 100-bed hospital of the same material is now in course of construction. The work on the hospital is being delayed by the difficulty in obtaining laborers on account of their fear and dread of the disease.

So far it has not been found practicable to have the lepers do work other than that entailed by their own domestic requirements. This course has been adopted in deference to their physical condition, and in respect to their innate disposition to take life easy, which after all is not a bad trait in lepers.

The mortality at the colony still remains high, but it is believed that it is materially lower than it would have been among these same people in their homes, as many of them were beggars and wholly dependent on public charity for their living. The great majority of cases were so far advanced when they were received into the colony as to render them beyond human aid; those who arrived in a reasonably fair condition have gained in weight and strength and are apparently happier, healthier, and better satisfied than they were in their native provinces. The work of the hospital staff has been exceedingly trying and disgusting owing to the prevalence of gangrenous ulcers among the new arrivals, the treatment of a single patient often requiring more time than a major surgical operation. As soon as the hospital now in process of construction is completed, the question of treatment will be greatly simplified by the increased facilities and more favorable conditions.

Progress is shown in the report of 1909 from which the following is taken:

A review of the work of the year with this disease shows that most satisfactory progress has been made, and all expectations more than realized.

A total of 1,318 lepers were transferred to Culion, and every province in the Philippines except Nueva Ecija and Moro have had at least one collection of lepers made. The incidence of the disease has been apparently decreased from 1 leper among every 2,000 inhabitants to 1 leper among every 2,800 inhabitants. At the close of the last fiscal year the estimated total number of lepers in the Islands was 2,708; this year it is 2,273. The hardest task of the health officer in order to bring this work to a successful issue, however, yet remains, and that is patiently, but nevertheless firmly and continually, to find the incipient cases and transfer them to Culion. With our present knowledge, the carrying out of this policy offers the only hope of ultimately eradicating this most loathsome disease from the Philippines.

Since the work of isolating the lepers of the Islands began in a systematic manner in 1906, there have been 3,990 collected up to the close of the fiscal year 1908–9. The work has been carried on with scarcely any friction or disturbance, nor has anyone felt that it was necessary to seek legal means to avoid segregation. The cheerful manner in which the great majority of the lepers and their friends have acquiesced when their turn came to be taken to Culion has been most satisfactory evidence of the forbearance of the people of the Philippines, and an example of how well a large public-health measure can be carried out when it is supported by public opinion and done in a manner which shows due regard for the rights of the individual.

At Culion there were at the close of the year 1,741 lepers and 185 were en route, making a total of 1,926. A much better feeling appears to prevail among the colonists than has heretofore been the case. An interested and cheerful activity is shown in the cultivation of gardens, the establishment of barrios or small groups of houses built some distance from the colony by the lepers themselves.

A number of causes are no doubt responsible for this. The great majority of the advanced cases that reached the colony in a hopeless condition have now passed away, and in consequence, the death rate has since become materially lower. The great improvement which has taken place in many cases from the use of the X-ray and more especially the use of crude chaulmoogra oil as recommended by Professor Dyer of New Orleans, has renewed hope to a marked extent. The offers of the Government to furnish work animals and farm implements are now eagerly accepted in many cases.

Our knowledge of leprosy has been considerably enhanced during the year by the discovery of Mr. Moses T. Clegg of the Bureau of Science of a method of cultivating the leper bacillus in artificial media. This is believed to be the first time that there has been an opportunity to study this organism satisfactorily, and there is now at least some hope that a serum or vaccine will be made which can be successfully used in combating this loathsome disease which has been shunned from Biblical time.

In the Bureau of Health report for 1910, under Leprosy and Its Treatment, it is stated that:

Most substantial progress has been made during the year with the leprosy problem. It may be safely said that it is nearer a successful solution than at any time since the introduction of the disease. If the Bureau had no other result to show for the appropriations which are made for its support, it is believed that this record more than justifies its existence. With the exception of the lepers in the Moro Province and a few isolated cases here and there, all the lepers in the Philippines are now segregated. To accomplish this was a task of large proportions, and required great courage and a resoluteness of purpose of the highest order. The employees of the Bureau and others who assisted in this work performed a great service for humanity.

Of the lepers segregated during the present year a great many were in the earliest stages of the disease and in many instances no outward manifestations were apparent, whereas in the collections made in former years, the cases were mostly advanced ones and were frequently loathsome and helpless, many of them being so feeble that they died before they reached their destination.

The leper collections also had the direct effect of restoring several hundred unfortunates to society, who for years were outcasts in the communities in which they lived. Upon proper medical examination they were found not to be lepers and in many instances it was possible to provide them with medical treatment that resulted in their complete recovery.

In the annual report of last year, mention was made of the fact that Mr. Moses T. Clegg, of the Bureau of Science, had apparently been successful in cultivating the leper bacillus. He had still further success with this work during the past year, and Maj. Eugene R. Whitmore, Medical Corps, U. S. Army, is now engaged in making a vaccine which it is hoped will be of value in the treatment of leprosy.

Treatment.—As has been the case in former years, many remedies for the cure of leprosy have been advanced in all parts of the world. Each of these treatments has been tried just as quickly as it could be secured and lepers found who would volunteer to take it.

The Nastin treatment was given a thorough trial, with negative results. The decoction prepared from the mangrove, which received so much publicity through the press on account of some alleged cures in Cuba, proved a failure. A powder which was claimed to have given remarkable results in a case of leprosy in Camden, New Jersey, was tried here, but so far without any noticeable benefit. The results of a treatment with a vaccine prepared from leprosy bacilli which were cultivated after the method of Clegg have so far not been very encouraging. As, however, further research in this direction is very promising, it will be continued.

The two methods used in the Philippines that have given beneficial results in certain forms of leprosy are the X-ray and chaulmoogra oil. No positive cures have resulted during the year from the X-ray, but the disappearance of all outward manifestations of the disease occurred in a number of patients. The chaulmoogra-oil treatment has given most encouraging results. It has been used in a number of cases, both at Culion and at the San Lazaro Hospital in Manila.

At Culion, there are two cases of leprosy from whom all evidence of the disease has disappeared but the leper bacilli can still be demonstrated in carefully prepared scrapings from the septum of the nose.

At San Lazaro Hospital there are five cases that have shown decided improvement and one of them is apparently cured.

Since the inception of the project to segregate all lepers in the Philippine Islands, the transfers to Culion have been as follows:

1906	Second quarter	365
	Third quarter	132
	Fourth quarter	305
1907	First quarter	1
	Second quarter	310
	Third quarter	221
	Fourth quarter	158
1908	First quarter	1,025
	Second quarter	150
	Third quarter	257
	Fourth quarter	171
1909	First quarter	396
	Second quarter	499
	Third quarter	198
	Fourth quarter	285
1910	First quarter	122
	Second quarter	180
	Third quarter	229
	Fourth quarter	399
1911	First quarter	173
	Second quarter	268
	Third quarter	0
	Fourth quarter	448
1912	First quarter	131
	Second quarter	276
	Third quarter	261
	Fourth quarter	297
1913	First quarter	259
	Second quarter	254
	Third quarter	204
	Fourth quarter	78
	Total	8,052

The island of Cebu, which has approximately one-tenth of the population of the Philippines, has furnished about one-half of the total number of lepers. This island constitutes one of the most thickly populated provinces of the Philippines and this large percentage of leper infection indicates that the disease is more easily contracted in communities which are densely populated.

CHAULMOOGRA OIL TREATMENT.

In view of the many requests which are being received for the details of the treatment of leprosy with crude chaulmoogra oil as used by Professor Dyer of New Orleans, the following extract of his method is given:

1. Full diet, restricting only indigestible foods is indicated. The disease seems in nowise to be affected by fish or any other particular article of diet.

2. Baths are essential in the treatment; hot baths twice a day, with or without soda, are effective.

3. The patient needs tonics, febrifuges, and should be watched for intercurrent or complicating diseases, such as malarial infection, pleurisy, pneumonia, grippe, and the like.
4. Strychnine is a *sine qua non* in the treatment of leprosy. My assistants and I lay down the rule that a leper should always take strychnine—the sort and size of dose to be regulated by the patient himself.
5. When chaulmoogra oil is given it is better endured before meals than after. It is best taken in capsules, in hot milk, or in milk of magnesia. The dosage should be begun small, say, 3 drops, and increased every second or third day until as much as 120 to 150 drops of the oil are taken at the dose.
6. Above all things individualize the patient. Watch for improvement and if it does not show in three months wait six months; if it does not show in six months, wait a year, or longer. But keep on driving at the treatment until the patient dies or gets well. I have on record one patient who did not show any signs of improvement for two years, but who is now well.
7. When all evidences of the disease are gone, insist on a continuance of treatment. It may not be necessary, but it makes sure.

X-RAY TREATMENT.

The treatment of leprosy with X-rays was begun by Dr. H. B. Wilkinson in San Lazaro Hospital in January, 1904. The apparatus used is a 10-inch spark machine, made by W. Watson & Sons, 313 High Holborn, London, with a variety of tubes supplied by the same firm. The bifocal tube exhausted for a 10-inch spark has given the most satisfaction.

In treating the cases, there was always selected the part of the body which presented the greatest amount of leprotic deposit, and it was usually exposed to the rays for ten minutes at a distance of 7 to 10 inches. The distance and time of exposure being varied somewhat from time to time, an effort being made to approach as near to the point of burning the skin as possible, without doing damage. In only two cases was the skin actually burned, and it is interesting to note that they are the first two cases herein reported as cured. During treatment the patient never suffers, and can only notice a slight tingling sensation over the area treated, as if a slight wind was blowing upon the skin. After two or three successive treatments, a blushing of the skin may or may not be noted, and usually a sensation of itching is experienced by the patient. Should superficial burns occur, treatment should be for the time suspended until tissue repair begins. These burns have shown little tendency to progress and have healed readily leaving little or no scar.

During the existence of Culion leper colony there have been three chiefs of division in charge. The first was Dr. C. F. de Mey who served from February, 1903, to January 15, 1907, when he resigned and was relieved by Dr. James H. Biggar who assumed charge January, 1907. On the resignation of Doctor Biggar April 15, 1910, the vacancy was filled by the designation of Dr. Paul Clements, medical inspector, Bureau of Health, who still holds the position. Dr. John E. Snodgrass was acting chief from October, 1911, to July, 1912, during the absence of Doctor Clements on vacation.

Each of these physicians has contributed his part to the success of the colony.

In addition to the head medical officer known as the chief of the division, a treating physician is employed. This is the one who is in the greatest danger of infection.

Of all the complaints that have come from the lepers, not one has been a protest against the administration or personal treatment. When they first enter the colony they fret under the necessary restriction and often complain about the little things; but this practice is growing less and a general feeling of resignation to the decree of fate is more apparent.

Another cause of complaint is the fact that they are too optimistic with regard to treatment. They want to try every remedy that they or their friends ever heard of or are ingenious enough to devise, and when they are not benefited, they consider it time to register a complaint on general principles. But leper patients are not the forlorn and hopeless people that they are generally believed to be, but they look forward to a cure and take an active interest in the affairs of life. Culion, of course, seems dreary to them until they form new acquaintances and become interested in new things.

Everything possible is being done to mitigate the sad condition of these unfortunates. The physical sufferings of leper patients are not so great as the pain and discomfort of many other diseases, but the very fact that detention at the colony usually means a life sentence, a separation from home and friends, and the taking up of a new life, as it were, is sufficient to cast a pall of gloom over their naturally hopeful dispositions.

The colony has been in full operation since 1906, but improvements are being made every year. System has supplanted chaos and contentment has to a large extent superseded discontentment.

In the report for the fiscal year ended June 30, 1913, the following statement appeared:

> Since the work of isolating lepers in the Philippine Islands was begun in a systematic manner in 1906, there have been 7,546 collected up to the close of the present fiscal year. During the present year there were 848 lepers collected. As the work goes on, there is even less friction than there was in the beginning. In fact, many cases now come forward voluntarily and ask to be transferred to the Culion leper colony. The

cheerful manner in which the great majority of the lepers have acquiesced in their transfer to Culion has been one of the most satisfactory evidences of how well a public-health measure may be carried out when it is supported by public opinion and is done in a manner which shows due regard for the rights of the individual. The better police service that exists now in many of the provinces has brought forth many lepers, the presence of which was not heretofore suspected. This year many lepers have again escaped from the municipal police while they were awaiting transfer to Culion. In view of the foregoing it is apparent that there are still many centers of infection in actual existence, so that the rapid diminution of the number of cases of leprosy that was so confidently expected a few years ago cannot at present be looked for.

As has been reported previously, Cebu, in spite of the fact that it has only about one-tenth of the population of the Philippines, still continues to furnish fully one-half of the number of lepers. Inquiry made recently by District Health Officer Pond shows that this may have been due to the fact that a leper hospital was established in Cebu in 1816 and lepers from all the Visayas were sent to it for care. There was, however, no effective guard maintained and it frequently happened that whole parties of lepers left the hospital at one time and settled down in nearby towns. For instance, Opon, where so many lepers have been collected, in all probability was one of the points to which lepers fled. The barrio of Cordoba, which, although it has a population of only a little more than 5,000, has furnished more than 275 lepers, seems to confirm this surmise. The large number of lepers found there may have been due to constant intermarrying. The foregoing may account in a way for the greater incidence of leprosy on the island of Cebu than is the case elsewhere. This is, however, offset in part by the fact that probably similar occurrences took place as regards the leper colonies that were established at Palestina in Ambos Camarines and at the San Lazaro Hospital in Manila.

During the year much has been done to alleviate the lonesomeness and monotony of life at Culion. During the Christmas holidays the Secretary of the Interior and the Director of Health took to Culion a moving picture machine and gave the lepers an evening's entertainment. From the funds so kindly donated by the Manila public a number of musical instruments have been purchased to replace those worn out; baseball equipment has been secured; games have been purchased, etc. There is now nearing completion a large theater building where it is proposed to give phonograph entertainments as well as moving picture shows from time to time.

The construction of reinforced-concrete houses at Culion has been steadily continued and beautification of the surroundings has been actively begun. A large coöperative store is shortly to be started at Culion which will have its own currency and will be operated entirely with leper employees. It is proposed at this store to purchase anything which a leper may produce and which the colony may be able to use, and in turn to sell the lepers such little necessities and comforts at a reasonable cost as they may desire to purchase. It is hoped that in this way it will be possible to stimulate the lepers toward doing something to maintain themselves. It is not believed that compulsory labor, even though only exacted from these who are physically fit, would ever give very satisfactory results, because after all a leper is a sick person, suffers much of the time from a fever, and would not be inclined to do any work under compulsion.

The self-sacrificing work done by the sisters of the St. Paul de Chartres order still continues to make the life of the ordinary leper much more

make their own rules of conduct, observing of course proper respect with regard to the duly constituted authorities and their official power.

They have a separate coinage made of aluminum redeemable in lawful money of the Islands. The first issue represented ₱8,000 in various denominations of small coins.

Culion leper colony should have a prosperous and useful career ahead of it, for as long as there is a single case of leprosy in the Islands, proper regard for the patient and the safety of the well demand that the leper shall be subjected to isolation under kindly, interested supervision.

MALARIA.

The campaign of education which has been carried on through the press with regard to malarial fever has resulted in the diffusion of much information among the masses and there are evidences on every hand of an awakening among the people to the fact that malarial fever is a preventable disease. Much stress has been laid upon this subject in the public lectures which have been given by medical officers of the Bureau in many of the municipalities throughout the Philippine Islands. The arrangement mentioned elsewhere for the sale of quinine by more than 700 municipal treasurers throughout the Philippines has also been of much service in disseminating information with regard to this disease.

Considerable malaria still continues to occur on the San Jose sugar estates on the island of Mindoro and this has great importance from a public health standpoint because laborers who leave their employ frequently introduce the disease into other islands and communities in which it has not heretofore been present.

That malaria is still a dangerous factor at the Iwahig penal colony was again well illustrated by a number of experiences during the past year. It will perhaps be remembered that the site of this colony, even before American occupation, was noted for its severe malaria. The sanitary measures which were introduced there in 1906 showed, however, that it was possible to reduce this disease to very small proportions if certain simple precautions were observed, which consisted, briefly, in draining and where this was not practicable in oiling, the use of mosquito nets and the prophylactic administration of quinine. By the observance of these simple rules the disease was practically exterminated from the site of the colony proper, but when laborers were sent to the outlying sections of the colony, which are now being opened up, they failed to observe these rules and the disease in dangerous form almost invariably made its appearance. Repeated recommendations have been made to observe the necessary precautions to avoid this danger.

The improved facilities for transportation from place to place and the increased earning power of the people are in all probability important factors in spreading malaria in the Philippines at a greater rate than has occurred in the past.

During the coming year, by means of public lectures, lantern exhibitions, instruction in the public schools, articles in the public press, and by the dissemination of useful information in other ways, it is hoped that the public can be prepared to meet the expense of more extensive drainage operations and other necessary features for the suppression of this disease.

PLAGUE.

Only two cases of human plague occurred during the period covered by this report. During the early days of September, plague-infected rats were found at 210 Calle Chica, 537 Calle Peñarubia, and 530 Calle Rivera. These were the first plague rats that have been discovered anywhere in the city since June 24. There had been no case of human plague since May 21. All of the available force of the Bureau of Health was immediately concentrated in carrying out antirat measures in the vicinity in which these plague-infected rats were discovered. The measures which were carried out in the zone which had Calle Chica for its center were almost completed, but they had not reached the block in which the Stewart Building is located. This block is bounded by the Pasig River, Plaza Goiti, Calle Echague, and Calle Helios.

Mr. Wm. Crozier, the editor of the Manila Daily Bulletin, who had his office in the Stewart Building, was taken violently ill on September 19 and on September 20 his case was definitely diagnosed as one of plague. On September 23 he died at the San Lazaro Hospital. The diagnosis was completely confirmed by laboratory methods.

While carrying out the insecticidal and other antiplague measures in his office, a mummified rat was found in a drawer of his desk. There were also in the drawer a number of live fleas, one of which was captured and identified at the Bureau of Science as the rat flea (*Pulex cheopis*). Stained specimens from this flea showed bipolar staining organisms that were identical with those of plague. The mummified rat or large mouse which was found in his desk was taken to the Bureau of Science, ground up, and inoculations made from it into healthy laboratory rats produced typical cases of plague in them. Dur-

REPORTS OF DIVISIONS AND BOARDS OF EXAMINERS.

under treatment at the close of the fiscal year. In the outdoor department of the hospital, 3,035 patients received treatment in addition to 8,646 who were treated at provincial health stations by physicians and sanitary inspectors.

The facilities of the Bontoc Hospital will soon have to be increased to meet the requirements of the wild people among whom it is situated.

Complete statistical information concerning the Bontoc Hospital will be found in the statistical portion of the report.

BUTUAN HOSPITAL DIVISION.

The Butuan Hospital is conducted under the supervision of the district health officer of Agusan Province. The local force consists of a hospital physician, who acts as cashier; a trained male nurse; and 2 servants.

In the hospital are treated all classes of diseases, except those of a dangerous communicable character. Dangerous communicable diseases are treated in special detention camps for each disease.

The influence of Butuan Hospital has extended to the homes of the wild men as is shown in their new *costumbre* of sleeping under mosquito nets to protect themselves from malaria. Until the establishment of this hospital the Manobos did not even know the value of quinine in malaria and depended on religious ceremonial treatment for combating this and other diseases with the result that they were not able in the majority of cases to appease the angry spirit that was causing their affliction and succumbed to his wrath.

CLERICAL DIVISION.

The six months ended December 31, 1913, have been busy ones for the clerical division, embracing the period during which the annual report is prepared and distributed and the estimates of appropriation prepared for submission to the Legislature.

Practically all of the activities of the Bureau are reflected in this division, and cholera, which was an extraordinary development, claimed some of its time, receiving in the furtherance of measures against it, precedence of all other matters.

Although the amount of work continues to increase in volume, it has been kept up to date; the difficulty in this regard existing in the financial section having been overcome by the employment of an additional clerk, a corresponding reduction being made in the record section.

CULION LEPER COLONY DIVISION.

During the period covered by this report, as during the year previous, the construction work at this division has centered around the Worcester Plaza, which is now complete, with the exception of the roof of the amusement hall, on which something over 1,000 tile remain to be laid. This will require only a very short time after the manufacture of tile is begun at this division. The work accomplished has included putting in concrete floors in the amusement hall and in tenement house No. 11, storm-water drains and steps around these two buildings and also tenement house No. 10 and lavatory No. 5, and a concrete walk 1½ meters in width along the entire north side of the plaza. The grading has been completed, and the plaza is now ready for ornamentation. The planting of shrubbery, etc., should be begun just before the beginning of the next rainy season, so that during its continuance the plants will have time to become thoroughly rooted.

Connecting Worcester Plaza and the lower plaza on which are situated the coöperative store, postoffice, and general kitchen, a massive concrete stair has been constructed. It is 8 meters wide over all, and 6 meters in the clear, and covers the rise of 7 meters in two flights of 22 and 17 steps, respectively, there being a platform 5 meters long between the two flights. Above, it is extended by a second platform of the same length, and by wing balustrades. Heavy concrete posts, each 1 meter square, mark the top and bottom of each flight and the extremities of the balustrades. The posts are connected by low seats along the sides of the platforms, and by heavy panels along the flights. Each post and each side panel is surmounted by a large vase, also of concrete, well proportioned to its base. In architectural effect, this stair is by far the most imposing piece of construction in the colony.

The excavation and grading of the slopes and terrace on the south side of the stair has been completed. That on the north side is still in the rough. About 45 meters on the upper end of the back road to connect the plaza with the main colony level has been excavated, leaving about 20 meters to be completed.

In the course of depositing the excavated material so as to widen the plaza near the hospital, it became necessary to cover, in part, the road which formerly ascended the hill at this point. To replace the upper part of this road, another stairway has been built, 2 meters in width with four flights of 10 steps each, with platforms 2 meters in length.

The large number of nipa houses which have been built along the road around the south side of Colony Hill, from Worcester Plaza, past the crematory to the hospital, has made the installation of toilet facilities at some point along this road imperative. The site selected is about half way between the crematory and the hospital. A portion of the necessary sewer has been laid, amounting to between 140 and 150 meters, and five manholes constructed.

No new construction has been undertaken in the nonleper portion of the colony during this period. A considerable amount of maintenance work, had, however, become necessary on the wooden buildings in which the chief of the division, the sisters, and the Filipino employees have their quarters, due to the fact that soft woods were used in the construction of these buildings, and had been attacked by termites. This work has been completed, as regards the quarters of the chief and those of the sisters, all unsound wood having been replaced, and is in progress on the Filipino quarters.

No labor has been available for continuing the fill to the north of the administration building, in front of the chaplain's quarters, mess hall, and laborers' quarters, nor to begin the contemplated alteration of slope on the sea wall already constructed, for the purpose of enabling it better to withstand wave action in heavy weather. Such cracks as had been caused by a combination of wave action and settling of the fill which backs the wall have been repaired.

In addition to the routine work of cleaning the colony, the leper labor has, during this period, reworked the entire length of the road around the south side of Colony Hill, widening it, resurfacing, and improving the grade, and has also widened a part of the beach road between lavatory No. 3 and the quarters occupied by the Spanish lepers, this necessitating the construction of a new sea wall, and the placing of a large amount of fill. Mr. Whalen, who formerly directed this work, resigned during the month of October, and was replaced by Mr. Faustino Gonzales, who had

The amount of leper labor to be exacted from each able-bodied man in the colony, fixed some years ago by the Secretary of the Interior at two days per month, has proven sufficient to keep the colony in a sanitary condition, and to leave some labor available for the construction of roads, drains, etc., within the colony. It is believed that the time has now come when the amount of such labor could, with advantage, be increased. Surplus labor could be used in agricultural projects for the good of the colony. Sufficient coconuts could, for instance, be planted to furnish in time oil for the use of all the people, thus relieving the necessity of purchasing lard. Kapok could also be planted, and bamboo, for both of which there is a demand. Other crops of more immediate benefit would be camotes, bananas, beans, etc. The soil of the island, on the whole, is not good; but an agricultural expert could doubtless select areas suitable for all of these crops.

Two lepers were transferred to San Lazaro Hospitals preparatory to leaving the Islands under bond, and one child born at the colony was transferred to the Hospicio de San Jose.

The death of a faithful employee must be noted here. Mateo Victorino, for about three years postmaster at Culion, and clerk in the division office, died of pulmonary tuberculosis shortly after going to Manila in the hope of recovering his health. He was an intelligent and conscientious employee, and enjoyed the friendship and confidence of everyone in both sections of the colony.

The other employees are the same as at the end of the past year, and there is only commendation of their service.

INSPECTION DIVISION.

The following abstract is taken from the report of the inspection division of the Bureau of Health for the fiscal year, submitted by Dr. John E. Snodgrass, assistant to the Director of Health.

CHOLERA.

During the six months ended December 31, the work of the division has been considerably augmented by an outbreak of the old-time foe—cholera, which reappeared in Manila on August 24, at 1060 Calle San Sebastian, after an absence of more than two years. The last previous case in Manila occurred on July 28, 1911, and in the provinces, at San Juan, La Union, October 29, 1911. The San Sebastian case occurred in a Filipino 45 years of age, a carpenter by trade. Absolutely no history is available that throws any light on the manner in which the disease was contracted, nor is there any apparent connection between this and many of the cases which occurred later. The next case occurred on August 25, at 353 Calle San Lazaro, and a third on the 27th, at 1772 Callejon Flores. During September, 11 cases occurred, in October 82, November 48, while in December the number dropped to 17, a total of 161 cases with 110 deaths in Manila.

The first provincial case was registered at Polo, Bulacan, on September 29. This case, probably, was directly connected with the foci of the disease in Manila, as was the second case which was discovered at Cavite, Cavite, on October 3. The Province of Bataan was next invaded, the first case occurring at Orion on October 12; a few days later, on the 16th, Caloocan, Rizal, was visited; on November 2, the disease appeared simultaneously in Dagupan and Asiñgan, two widely separated towns in the old-time hotbed of cholera—Pangasinan Province. A similar occurrence was reported in the Province of Cebu, a case occurring in Cebu City on November 23 and in Opon on the 26th. The last provinces to become infected, were Tayabas with a case at Lucena on December 8, and Capiz, where cases were reported at Calivo, Banga, and New Washington on December 9. The total number of provincial cases reported up until December 31, was 171 with 106 deaths.

In the Capiz visitation it would seem probable that the infection had existed for some time previously, but remained unreported, as the three towns adjoin each other and a number of cases were reported on the same date. In this and some of the other invasions, the connection with the Manila, or other infections, while possible, is rather improbable, which lends color to the belief that the cholera vibrio passes through a definite cycle during the course of its development and that when a certain stage is reached, a chilled abdomen or disturbed digestion from any cause, is sufficient to precipitate an attack. Granted that such a cycle exists, it would appear that the critical stage is reached in about two years, as a perusal of the history of the disease in the Philippines shows that, oftener than not, the epidemics have occurred at intervals of approximately two years.

It is now pretty well established that the bacillus of leprosy undergoes certain definite and distinct morphological changes, and that the rod-shaped bacillus of Hansen is the final stage. From the history of the outbreaks of cholera, it would appear that the vibrio of cholera undergoes similar transformations and that it is only possible to contract the disease during the final stage of the cycle.

SPECIAL CHOLERA INSTRUCTIONS FOR MANILA.

The following cholera instructions have been issued for the guidance of the medical officers of the Bureau of Health in Manila, and through them many cases of cholera have been found that would have escaped detection:

"Until further notice, on account of the presence of cholera in Manila, the following instructions shall be observed with regard to dead bodies:

"(1) All cases in which the diagnosis is undetermined or in which there is reasonable ground to believe that the death was due to cholera shall be sent to the morgue.

"(2) Rectal specimens shall be taken with a wire from every dead body and the same promptly sent to the laboratory to be examined for cholera.

"(3) The following disinfection shall be carried out on every premises upon which a death occurs, unless the medical inspector has satisfied himself that such death was in no way connnected with cholera:

"(*a*) Disinfection of the toilet and all receptacles with which the deceased came in contact.

"(*b*) The disinfection of all bed linen, petates, clothing, etc., with which the deceased was connected.

"(*c*) All contacts shall be required to wash their hands in disinfecting solutions."

CHOLERA INSTRUCTIONS FOR THE PROVINCES.

The following circular of instructions, supplementary in character, was sent to all district health officers November 3, 1913:

"In addition to the notification which was sent you by telegram with regard to cholera, your attention is particularly directed to the instructions contained in the Manual for dealing with cholera and you are requested rigidly to enforce them. Experience up to the present time has shown that some officials simply content themselves with issuing orders and not personally satisfying themselves that they are strictly carried out. It is absolutely essential that all instructions contained in the Manual be strictly observed. You should satisfy yourself that cases and contacts are quarantined in their houses; that provision be made for receiving the stools of the cholera patient as well *as of all contacts* in a solution composed of 5 per cent carbolic acid, or 2 per cent kreso, or 1 to 500 bichloride of mercury, or a 2 per cent larvacide solution; that all persons concerned in a cholera case, including inspectors and doctors, should carefully wash their hands in a disinfecting solution before taking anything to eat; and for this purpose a basin of disinfecting solution should be kept in front of each house in which cholera occurs; that all stools from the cholera house after disinfection be burned or buried; stools should under no circumstances be thrown into running streams or upon ground surfaces where they may be washed into streams; specimens from all cases should be sent to the Bureau of Health for laboratory examination."

UNCLASSIFIED DISEASES.

It is apparent that a number of diseases exist in the Islands that are not described in the textbooks and, in fact, are not recognized as distinct entities by the medical profession. One example of this class of disease was prevalent in Manila during December. The first symptoms complained of in the majority of cases were spasmodic colicky pains in the region of the umbilicus, which frequently came on during the night accompanied by typical, yellow, frothy, diarrhœic stools at varying intervals; the abdominal pains as a rule occurred independently of the bowel movements; nausea was experienced in some instances; the appetite was not impaired to a degree proportionate with the fever and digestive disturbance; a fever of 100 to 102° was present in the majority of cases; the usual systemic symptoms coincident with fever and digestive derangement were noted. The diarrhœa continued for a period of from seven to ten days, in some cases only one bowel movement per day occurred during the last four or five days of the fever, but it was of the same type as described above. A notable feature of the disease was the almost instant aggravation of the colicky abdominal pains on taking either food or drink into the stomach.

The fever in the milder cases was present only during the afternoon and evening, but as a rule continued for about ten days, and after its disappearance a period of digestive troubles ensued for the succeeding week, or possibly two.

The interesting feature of the disease, however, lies in the microscopical findings during the study of the stools. The writer was awakened at about 4 o'clock in the morning with symptoms about as described, and believed the trouble to be due to a chilling of the abdomen during the night; but as the diarrhœa, pains, and fever did not subside during the succeeding twenty-four hours a specimen of the stool was taken to Doctor Schöbl, of the Bureau of Science, for study. He reported the presence of a motile, rod-shaped bacillus, which grew on agar in the form of blue colonies. Various experiments were made but it did not conform to the tests for any of the described bacilli. It resembles Gartner's enteritis bacillus more nearly than any other form described, though bearing some resemblance to the paratyphoid group.

Stools from other cases presenting similar symptoms were examined and in all instances the same bacillus was present.

EXPOSITION AND CARNIVAL EXHIBIT.

Considerable time was spent in the preparation of a suitable exhibit for the 1914 Philippine Exposition, and it is believed that the material collected for this purpose will far surpass any previous effort of the Bureau.

For the carnival parade, figures, 6 feet in length, of flies, mosquitoes, bedbugs, cockroaches, and fleas will be pursued by disinfecting pumps 8 feet high.

Emergency stations will be installed in both the exposition and carnival grounds and an ambulance will be stationed at the former and will care for the emergency cases occurring in both.

It is expected to use a moving-picture outfit in connection with the exhibit at the exposition. Health talks, illustrated by films and lantern slides, will be given. Many other new features, such as a rat-infected house, models of sanitary wells, houses, etc., contrasted with the type ordinarily found; model of soldiers marching against the cannon and against the more deadly foe—the typhoid bacillus, and illustrating the resulting percentage of illness and death in each case; model of sanitary nipa house and surroundings; different varieties of intestinal parasites; pictures indicating the progress made along the line of sanitation; and placards bearing pertinent health instructions will be shown.

BUBONIC PLAGUE.

An infection of bubonic plague in Manila was carried over from the preceding fiscal year; however, only two cases of human plague were registered during the past six months, the first of these, Mr. C., an American, living at 346 Calle Kansas, and whose place of business was in the Stewart Building, corner of Calle Echague and Plaza Goiti, occurred on September 20, and the other, a Filipino, living at 745 Calle Echague, interior, was discovered dead on November 25.

The evidence against the rat was so strong in the case of the American that a short résumé of the attending circumstances is given by Medical Inspector T. W. Jackson who was in charge of plague suppressive measures, as follows:

"Mr. C was taken ill on Thursday night, September 18, sought medical advice and entered St. Paul's Hospital Friday, September 19, and was transferred to San Lazaro Hospital Saturday, September 20, with an established clinical and bacteriological diagnosis of bubonic plague. He survived until Monday September 22.

"Upon Sunday, September 21, in the course of disinfecting the office of the Manila Bulletin, of which paper Mr. C was editor, a dead rat, mummefied, was found in the right-hand drawer of his desk, and fleas were seen to hop from the drawer upon opening it. A flea killed by the disinfecting mixture, just at this desk was identified at the Bureau of Science as a rat flea (*Xenopsylla cheopis*).

"The rat cadaver was sent to the Bureau of Science and the following report was received therefrom some days later: 'The rat was ground up in a sterile mortar. The resulting material was suspended in sterile bouillon and injected into a guinea pig. The guinea pig died within three days and the bacillus pestis was recovered from the subcutaneous œdema and from the spleen of the experimental animal.'

"There could scarcely be a stronger chain of incriminating evidence against the rat and the flea, nor a more complete explanation of Mr. C's infection and death."

From July 1 to December 31, five positive plague rats were identified by the Bureau of Science the last one of which was captured at No. 63 Calle Echague (Stewart Building) on September 23. When the disease was discovered either in man or rats a vigorous antirat campaign was immediately inaugurated in the infected district; a total of 27,051 rats were trapped, poisoned, killed by Australian terriers imported for the purpose, and dug out and killed by laborers during the six months covered by this report; the total for the calendar year was 82,152 not including those caught by the health stations which would swell the total to about 90,000; all refuse was removed by cleaning gangs and hauled away, lumber and anything affording a hiding place for rats was elevated sufficiently to permit of the entrance of dogs and cats.

It is believed that the disease is practically eradicated from the Islands. One case was reported in Iloilo on August 25, but the Bureau of Science report on it proved negative for plague.

MEDICAL INSPECTION OF SCHOOLS.

The medical inspector of schools reports that there are about 15,000 pupils attending the Manila schools. Of this number about 12,000 are at present examined twice yearly. The normal, high, and majority of the private schools do not enjoy the advantages of this very necessary work. A medical examination once in six months is too infrequent. It is recommended that an additional medical inspector be assigned to this duty in order that all pupils may be inspected at least once every four months.

MOSQUITO SUPPRESSIVE MEASURES.

The campaign against mosquitoes was carried on by this Bureau up until November 1, when the work was taken over by the city of Manila. The assistant sanitary inspectors that had been on duty with the "mosquito brigade" for months and hence were familiar with the work were loaned to the city temporarily. At the end of the year five of these men were still assisting the department of sanitation and transportation in the training of new men to continue the work.

The results obtained during the period that this work was carried on by this Bureau were highly satisfactory. Four years ago it was a common experience to have so many mosquitoes in the house at night that a continuous humming could be heard. At present if three or four mosquitoes are found in a room it is made the occasion for the registering of a protest.

The principal remaining anopheles breeding centers are found in the Tondo fish ponds, along both sides of Calle Leveriza to Herran and along Calle Nagtahan nearly opposite No. 16. Mosquito larvæ-eating fish have been placed in some of these ponds but few if any of the fish could be found after a period of a few weeks, despite their proclivities for rapid breeding. It is presumed that the conditions were not favorable to their growth or that certain species of fish devoured them.

Copper sulphate in solution as a destroyer of algæ was experimented with in some of the ponds in Manila. It was found that a solution 1 to 200,000 would destroy algæ in twenty-four hours; 1 to 500,000 in three or four days and 1 to 1,000,000 would kill the portion on top of the water, but that it would grow again in a short time from the undestroyed portion beneath.

During the calendar year a tide gate was installed by the city upon the recommendation of the Bureau of Health in the estero under Calle

Isaac Peral, near the Columbia Club. The gate works automatically and has been a marked success in that it has to a large extent prevented the flooding of the low ground from this point to Calle Padre Faura and thus has prevented the breeding of myriads of mosquitoes. Another gate was installed at the entrance to the barrio of Santa Clara on Calle Zurbaran which prevents the flooding of a large area.

In the barrio of Santa Clara, Sampaloc, a drainage canal extending from Calle Zurburan to Calle Lamayan was constructed. The Magdalena estero was filled from a point just back of San Lazaro Hospital to Calle Magdalena and a cement canal constructed in its place.

It is recommended that efforts be made to have the city install a tide gate in the estero or back water which passes under Calle Real, Malate. Such a gate would prevent the flooding of an immense tract of land and thus prevent the formation of many mosquito-breeding foci.

STERILIZATION OF WATER IN TIENDAS AND RESTAURANTS.

Considerable improvement is noticeable in the water supplied in tiendas and restaurants in all sections of Manila. This advance is due to the influence of circular No. L—30, issued and enforced by the Bureau and giving a simple method of sterilizing water by boiling in a teakettle and instructions for the care of the water afterward until used. Samples have been collected from the tiendas and sent to the Bureau of Science for analysis and in many instances the water has been found to be absolutely free of protozoa.

TOBACCO FACTORIES.

After considerable delay and discussion on the subject, the rules and regulations for the sanitary control of cigar, cigarette, and tobacco factories, which were submitted to the Municipal Board during the previous fiscal year, were adopted in the form of Ordinance No. 210, though not without amendment.

PERSONNEL.

The personnel of the office of the Assistant Director of Health, on December 31, was distributed as follows:

	Medical inspectors.	Municipal physicians.	Sanitary inspectors.	Assistant sanitary inspectors.	Sanitary police.	Disinfectors.
Station A	1	3	2	20	6	[a] 5
Station C	1	2	2	15	2	
Station I	1	1	1	8	3	
Station J	1	1	3	9	3	4
Station L	1	1	1	6	3	
Plague suppressive measures	[b] 1		1	6		
Mosquito campaign				6		
Office of sanitary engineer			2	1		
Property division			1			
Central office	[c] 1					
Bilibid prison sanitation division	[d] 1					
Provincial duty	2			8		
San Lazaro	[e] 1					
On leave	3					
Total	14	8	13	79	17	9

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[a] Includes 1 chief disinfector and 1 assistant chief disinfector.

[b] Medical Inspector in charge of Station "C".

[c] One medical inspector of Central office is temporarily assigned to take charge of Station "L".

[d] Chief, Prison Sanitation Division.

[e] Acting Chief San Lazaro Hospital during absence of regular incumbent on leave.

SANITARY INSPECTORS' HANDBOOK.

The Sanitary Inspectors' Handbooks referred to in the last annual report were received from the printer during the month of August and their distribution to all medical officers and sanitary inspectors under the direction of the Bureau, was begun at once.

It is expected that the use of these books will make a decided improvement in the efficiency of the sanitary personnel in the provinces.

One of the requirements for appointment as Insular assistant sanitary inspector will be that the applicant shall pass an examination on the contents of this book. On account of the great number of applications for a copy of the book printed in the Spanish language, it was decided to do this and the translation is now under way. It is hoped to have it printed by the last of March; if this is done the first of the examinations referred to will be held in April or May.

MISCELLANEOUS.

The ordinary routine work of the division was carried on as usual during the period of this report. The service was considerably crippled at times on account of the necessity of sending a number of the assistant sanitary inspectors to various provinces to assist in cholera suppressive measures. Assistant sanitary inspectors were assigned to this duty in the following towns during the period from October 18 to December 31:

Rizal:	
Novaliches and Caloocan	1
Parañaque	1
Pasig	13
San Mateo	1
Pasay	1
Pateros and Taguig	1
Navotas	1
Las Piñas	1
Bataan:	
Pilar	1
Limay	1
Pangasinan:	
Dagupan	1
Asingan	1
Capiz: Capiz	5

On December 31, 4 assistant sanitary inspectors were on cholera duty at Pasig, 1 at Pateros and Taguig, Rizal, and 5 in Capiz Province.

One American sanitary inspector was assigned to cholera duty in Rizal Province, and especially in Pasig, during the worst part of the outbreak in that province.

It is believed that certain changes should be made in the Manila districts assigned to the assistant sanitary inspectors as it appears that the results obtained under the present system leave much to be desired. An effort will be made to work out a practical scheme.

IWAHIG PENAL COLONY DIVISION.

The Iwahig penal colony is situated near Puerto Princesa, Palawan, and is conducted by the Bureau of Prisons, but the hospital and sanitation of the colony are under the jurisdiction of the Bureau of Health.

Of the 703 cases treated during the short fiscal year 14 died, 659 were discharged as cured, and 30 were still under treatment at the close of the year.

Complete statistical information concerning the medical work of the colony will be found in the statistical portion of the report.

PHILIPPINE GENERAL HOSPITAL DIVISION.

The work of this division during the short fiscal year ended December 31, 1913, has been very satisfactory and the progress noted is an indication of the popularity of the institution.

The addition to the free dispensary is nearing completion and will relieve the congestion in this, at present, overcrowded department.

The plans for the much needed addition to the main kitchen are well under way and it is hoped that the project may be carried to completion without interruption.

Certain statistics heretofore not included in the annual report are given below as it is believed that they are of sufficient value to warrant their publication:

General information.

Total number of patients remaining in the hospital, June 30, 1913	281
Total number of patients admitted from July 1, 1913, to Dec. 31, 1913	3,559
Total number of patients treated from July 1, 1913, to Dec. 31, 1913	3,840
Total number of patients discharged and transferred from July 1, to Dec. 31, 1913	3,588
Total number of applicants for admission, rejected	212
Total number of hospital days	52,227
Average number of hospital days	14.6
Total number of patients treated in dispensary clinics	28,287
Total number of prescriptions filled	44,667
Total number of ambulance calls	1,280

Statement of certified accounts for the last six months of 1913.

July	₱19,057.44
August	19,041.08
September	17,538.78
October	16,501.01
November	15,218.59
December	15,572.92
Total	102,929.82

Income report from pay patients for accommodation and subsistence.

	Room.	Ward.	
General Hospital:			
July	₱203.63	₱341.13	
August		255.24	
September	148.75	206.25	
October	112.50	367.00	
November	91.63	69.00	
December	18.25	145.38	
Total	574.76	1,384.00	₱1,958.76
Government:			
July	1,988.65	2,021.13	
August	1,790.05	1,205.13	
September	1,639.39	1,365.13	
October	1,499.68	1,145.75	
November	1,348.55	1,306.88	
December	1,072.28	1,360.25	
Total	9,338.60	8,404.27	17,742.87

Income report from pay patients for accommodation and subsistence—Contd.

	Room.	Ward.	
Private:			
July	₱2,141.78	₱651.75	
August	1,810.54	524.00	
September	1,679.49	400.25	
October	1,503.19	348.00	
November	1,034.92	437.75	
December	1,370.66	646.00	
Total	9,540.58	3,007.75	
			₱12,548.33
City of Manila			25,000.00
Appropriations for care of charity patients			32,500.00
Extra accommodation and subsistence:			
July		₱246.75	
August		282.00	
September		243.75	
October		231.75	
November		72.75	
December		56.25	
Total			1,133.25
Electric fan:			
July		8.00	
August			
September		19.50	
October		11.50	
November		5.00	
December			
Total			44.00
Maternity fees:			
July		80.00	
August		60.00	
September		160.00	
October		100.00	
November			
December		20.00	
Total			420.00
Doctor's fees:			
July		996.00	
August		264.00	
September		379.00	
October		282.00	
November		151.00	
December		189.00	
Total			2,261.00
Dental treatment:			
July		179.50	
August		211.00	
September		182.00	
October		148.00	
November		120.00	
December		135.00	
Total			975.50
Extra medicines:			
July		133.95	
August		79.40	
September		173.23	
October		188.07	
November		166.60	
December		110.67	
Total			851.92

Income report from pay patients for accommodation and subsistence—Contd.

X-rays:		
July	₱420.00	
August	457.50	
September	186.60	
October		
November		
December		
Total		₱1,064.10
Ambulance fees:		
July	25.00	
August	40.00	
September	40.00	
October	75.00	
November	20.00	
December	65.00	
Total		265.00
Laboratory examinations:		
July	249.00	
August	341.00	
September	238.00	
October	259.00	
November	152.00	
December	187.00	
Total		1,426.00
Messenger fees:		
July	7.00	
August	3.50	
September	12.00	
October	11.00	
November	8.00	
December	8.00	
Total		49.50
Operating room:		
Fees—		
July	202.00	
August	150.00	
September	140.00	
October	152.00	
November	250.00	
December	232.00	
Total		1,126.00
Dressings—		
July	70.50	
August	41.00	
September	32.90	
October	45.50	
November	38.00	
December	65.00	
Total		292.90
Extra bed:		
July	15.00	
August	52.50	
September	48.00	
October	51.00	
November	18.00	
December	12.00	
Total		196.50

Income report from pay patients for accommodation and subsistence—Contd.

Extra meals:		
July	₱183.23	
August	21.13	
September	44.32	
October	30.23	
November	42.46	
December	42.32	
Total		₱363.69
Sundries:		
July	7.50	
August	89.86	
September	227.69	
October	2.30	
November	54.71	
December	1.34	
Total		383.40
Dispensary tickets, sales:		
July	352.60	
August	355.60	
September	389.20	
October	354.20	
November	248.00	
December	253.20	
Total		1,952.80
Hospital nursing:		
July	200.00	
August	174.30	
September		
October		
November		
December		
Total		374.30
Grand total		102,929.82

Cost of operation from July 1, 1913, to December 31, 1913.

Administration:		
Salaries	₱14,944.54	
Office expense	1,253.91	
Telephone	1,086.76	
Transportation—		
Car fare	151.21	
Livery hire	347.41	
Charity patients	19.78	
Printing and binding	3,849.18	
		₱21,652.79
Professional care of patients:		
Salaries	28,695.81	
Medical and surgical supplies	11,133.15	
Drugs and prescriptions	9.110.74	
		48,939.70
Pathological laboratory		1,774.84
X-ray department		1,403.20
Training School: Salaries and supplies		22,414.40
Ambulance:		
Salaries	3.281.00	
Supplies	131.26	
		3,412.26
Laundry		27,733.77
Housekeeping:		
Salaries	16,375.20	
Supplies and repairs	7,426.79	
		23,801.99

Cost of operation from July 1, 1913, to December 31, 1913—Continued.

Dietist department:		
Salaries	₱3,595.25	
Subsistence	69,622.82	
Miscellaneous	967.67	
		₱74,185.74
Fuel, light, and power		15,471.25
Maintenance:		
Buildings	1,140.72	
Upkeep of grounds	1,875.81	
		3,016.53
Discounts, paragraph 37, Hospital Rules and Regulations, and other credits		2,502.98
Extra expense (account of John B. West)		1,199.75
Total		247,509.20

Vouchers Drawn on Bureau of Health from July 1, 1913, to December 31, 1913.

July	₱38,008.58	
August	38,943.89	
September	52,920.05	
October	47,710.98	
November	41,052.23	
December	48,795.51	
		₱267,431.24

Due by Bureau of Health from July 1, 1913, to December 31, 1913.

July	₱6.16	
August	30.50	
September	100.36	
October		
November	74.16	
December	228.06	
		₱439.24
Balance		266,992.00

DISTRIBUTION.

New equipment	15,274.58
New permanent improvements	27,018.66
Operation	224,698.76
Total	266,992.00

Expendable property received and issued from July 1, 1913, to December 31, 1913.

On hand, July 1, 1913	₱17,707.12	
Received:		
July	1,682.89	
August	3,975.62	
September	18,439.79	
October	2,576.87	
November	2,682.93	
December	1 847.12	
Total		₱48,912.34
Issued:		
July	4 378.13	
August	9 264.12	
September	5,268.22	
October	5.732.48	
November	4,491.81	
December	674.64	
Total		29,809.40
Balance, Dec. 31, 1913		19,102.94

Nonexpendable property received and issued.

On hand, July 1, 1913	₱272,470.98	
Received:		
July	870.35	
August	901.25	
September	2,437.51	
October	9,872.02	
November	424.95	
December	768.50	
Total		₱287,745.56
Dropped:		
July	3.26	
August	4,749.76	
September	155.69	
October	332.01	
November	3,132.49	
December	145.73	
Total		8,518.94
Balance, Dec. 31, 1913		279,226.62
		287,745.56

Subsistence report.

Diets issued.	Patients.	Employees.	Total.
Regular:			
Class A	23,171	38,545	61,716
Class B	3,649	23,927⅓	27,576⅓
Soft "A"	9,932		9,932
Solid "B"	3,279		3,279
Liquid "A"	6,206		6,206
Diets "B"	1,488		1,488
Special	3,914		3,914
Total	51,639	62,472⅓	114,111⅓

Per capita cost, ₱0.6070+.

DR.

Balance on hand, July 1, 1913		₱2,515.50
To contract purchases:		
John Rothschild & Co	₱2,199.24	
Lutz & Co	7,983.91	
Nestle and Anglo-Swiss Condensed Milk Co	1,959.80	
Rueda Hermanos	742.78	
Tan Lam Tin	45.45	
Vienna Model Bakery	4,618.65	
Lucio Bustamante	63.04	
Wm. H. Anderson & Co	6,632.96	
Pacific Commercial Co	7,450.86	
Philippine Cold Stores	15,789.29	
Pujalte & Co. (special)	17.22	
To purchases from the various Bureaus:		
Bureau of Supply	2,779.06	
Bureau of Supply (division of cold storage)	1,500.52	
To open market purchases	20,206.38	
	71,989.16	
Emergency purchases:		
Lutz & Co	1.56	
K. W. Lung & Co	.68	
St. Louis Bakery	.60	
M. A. Clarke	.40	
La España	.08	
Concha de Rivas	.78	
The California Grocery Co	.70	
		71,993.96
Total		74,509.46

Subsistence report—Continued.

CR.

For superintendent's subsistence, with surcharge	₱65.33	
Issued to Philippine Training School	117.88	
Issued to dispensary	180.13	
Miscellaneous sales to patients	13.98	
Amount consumed from July 1 to Dec. 31, 1913	69,291.21	
		₱69,668.53
Balance on hand, Jan. 1, 1914		4,840.93
Total		74,509.46
Average cost per day		376.4939+
Average number subsisted per day		620.170 +
Average cost per capita per day		.6070+

Statement of accounts receivable from July 1, 1913, to Dec. 31, 1913.

DR.

Accounts receivable on June 30, 1913		₱20,150.67
Certified accounts:		
July	₱19,057.44	
August	19,041.08	
September	17,538.78	
October	16,501.01	
November	15,218.59	
December	15,572.92	
Total certification in six months		102,929.82
Total		123,080.49

CR.

	Deposits.	Allowances.	
July	₱9,370.34	541.25	
August	8,166.24	263.82	
September	9,264.83	320.81	
October	8,011.46	873.58	
November	5,531.42	448.40	
December	5,445.31	21.95	
	45,789.60		
City of Manila	25,000.00		
Total deposits			70,789.60
Total allowance under paragraph 37, Hospital Rules and Regulations			2,469.81
College of Medicine and Surgery to Bureau of Health, direct			32,500.00
Total credits			105,759.41
Balance accounts receivable on Dec. 31, 1913			17,321.08
			123,080.49

Drugs and medicines received and issued by the pharmacy.

On hand, July 1, 1913		₱10,685.23
Received:		
July	₱1,592.35	
August	6,644.70	
September	1,429.97	
October	871.41	
November	640.09	
December	1,705.78	
		12,884.30
Total		23,569.53
Issued:		
July	1,424.25	
August	1,902.10	
September	3,904.50	
October	1,919.02	
November	1,649.08	
December	5,024.76	
		15,823.71
Balance on hand, Dec. 31, 1913		7,745.82
Total		23,569.53

Street-car tickets received and issued.

Balance on hand July 1, 1913		₱47.12
Received:		
July	₱24.00	
August	48.00	
September		
October	27.00	
November	8.00	
December	27.00	
		134.00
Total		181.12
Issued:		
July	27.68	
August	24.09	
September	26.39	
October	28.99	
November	20.67	
December	23.39	
		151.21
Balance on hand, Dec. 31, 1913		29.91
Total		181.12

Official postage stamps received and issued.

On hand, July 1, 1913		₱30.00
Received:		
July		
August	₱80.00	
September		
October		
November	60.00	
December		
		140.00
Total		170.00
Issued:		
July	20.34	
August	21.56	
September	21.82	
October	16.62	
November	15.52	
December	18.12	
		113.98
Balance on hand, Dec. 31, 1913		56.02
Total		170.00

Permanent improvements.

Real estate, July 1, 1913		₱1,133,681.94
Additions:		
July	₱622.46	
August	1,349.06	
September	760.38	
October	379.91	
November	14,755.71	
December	9,151.14	
		27,018.66
Total		1,160,700.60

Money deposited in treasury by cashier.

July	₱9,370.34
August	8,166.24
September	9,264.83
October	20,511.46
November	5,531.42
December	17,945.31
Total	70,789.60

PHILIPPINE TRAINING SCHOOL FOR NURSES.

There are at present 193 pupil nurses in the Philippine Training School for Nurses, or 7 less than the total number allowed by Act No. 2161. Of this number 59 students, 19 young men and 40 young women, will receive their degree as graduate nurses in April, 1914, if successful in their examinations. That the success of the training is assured is beyond question.

The thorough education received in sanitary and hygienic subjects together with discipline and the self-control and self-reliance practiced in the school has produced a class of young men and women who are useful in all branches of business life in the Philippines.

Three years ago only the most optimistic would have believed that it was possible to successfully train young Filipino men and women to assume the most important duties of the nursing profession. To-day the measure of the success of the Training School may be judged from the fact that the Philippine General Hospital corps is almost entirely composed of Filipina nurses. So complete is the Filipinization of this corps that there are only 8 American trained nurses, including the superintendent of the Training School, in the institution.

A graduate of the school is chief supervisor of the surgical department, supervising an average of 285 operations per month; another is in charge of the eye, ear, nose, and throat department, assisting in 1,258 or more operations and surgical dressings per month. Two graduate nurses have complete charge of the diets for the institution for both Filipino and American patients and the hospital staff, as well as doing all marketing for the hospital. Two others are anaesthetists. Three are general supervisors. One is night supervisor of the hospital. Two are dormitory matrons. Two are district obstetrical nurses. Another is assistant to the superintendent of the Philippine Training School for nurses and another is chief nurse in the dispensary, in which over 4,000 patients per month are treated. Some of the graduates of the Training School have shown such marked advancement in the nursing profession that they have been made teachers in the Training School and have in every instance proven their ability to carry on the work of their predecessors.

The graduates of the Training School are to-day the backbone of the nursing staff of all the Government hospitals throughout the Islands. They are sought after by large corporations to look after the hospitals of the large plantations. The Antituberculosis hospital at San Juan del Monte is managed entirely by two graduates of the Training School and their work is a monument to the efficiency of the training received.

Classification of pupils in the school on December 31.

Class.	Pupil nurses.	Male.	Female.
Senior	55	17	38
Junior	59	22	37
Preliminary	79	30	49

Total number of pupil nurses admitted on Sept. 15, 1913 (30 male, 49 female)	79
Total number of applicants on waiting list (218 male, 76 female)	294
Total number of days lost on account of illness	862
Total number of students sick	101
Total number of medical cases	57
Total number of surgical cases	15
Total number of nurses who were released from the Philippine Training School for Nurses (14 male, 8 female)	22

PRISON SANITATION DIVISION.

The statistical table for the period covered by this report shows a general death rate of 20.62 per 1,000 per annum; for tuberculosis 13.57 per 1,000 per annum; for nontubercular cases 7.05 per 1,000 per annum, as against a general death rate of 29.85 per 1,000 per annum; for tuberculosis 22.88 per 1,000 per annum; for nontubercular cases 7.06 per 1,000 per annum for the year ending June 30, 1913.

During the preceding year a general survey for filaria was made of all prisoners confined in Bilibid. More than 5,000 blood examinations were made, each prisoner's blood being examined twice, with the result that 297 prisoners (10.5 per cent) were found infected with filaria. During the past six months all prisoners have been reëxamined, making an additional 5,000 examinations, or a total of approximately 10,000 blood examinations for filaria alone. The second survey resulted in the discovery of 6 additional cases from among those reported negative on first examination. As these prisoners were mostly from known infected provinces, they probably carried the infection at the time of their first examination, though no micro-filaria appeared in the blood specimen taken at that time. In addition to the survey work on prisoners in Bilibid, all new arrivals have been examined as they came in, with the result that we have 73 (0.039 per cent) new cases of filaria to report from among those examined. Out of all this number of filaria cases only 1, a Negrito from Negros, has shown any indication of pathological results due to the filaria. This man was suffering from elephantiasis of the scrotum. The total number of filaria cases discovered to date number 370, of which 278 remained in Bilibid December 31, 1913.

BUILDINGS.

The new quarantine and contagious buildings and hospital kitchen have been completed and are now being occupied. The buildings furnish adequate accommodations for the needs of this institution.

A morgue should be provided for, separate from the hospital building.

The hospital windows should be provided with longer lifts in order to admit the maximum amount of air and light.

The operating room should be remodeled so as to do away with the rough walls and wooden partitions which serve to collect dust. All walls should be smooth finished.

The operating and dressing room windows should be rearranged so as to admit more light.

The floor of the general kitchen should be relaid so as to give better drainage; better ventilation should be provided; the walls and ceilings cleaned and painted or white-washed; and the roof repaired.

TUBERCULOSIS.

Tuberculosis now, as in the past, continues to be the chief factor in our morbidity and mortality rates. Out of 627 prisoners examined for transfer to Corregidor, 129 (20.5 per cent) were found clinically positive for tuberculosis. A glance at our mortality table shows that 13.57 per 1,000 per annum died of tuberculosis, almost double the death rate for nontuberculous cases, 7.05 per 1,000 per annum.

The work done during the year in replacing the wooden floors with concrete in the work shops has undoubtedly been beneficial in limiting the spread of tubercular infection.

Again, all bed bottoms have been put through the steam chamber regularly once or twice monthly, and much infection has been destroyed in this way.

Again, the nature and method of infection have been explained to the prison foremen, and they have been requested to advise the men under them to refrain from spitting on the floor and grounds and to report all cases of sickness from any cause.

The following antituberculosis recommendations are made:

1. That the insanitary wooden cuspidors at present used, which often leak and permit their contents to run over the floor, be replaced by seamless, pressed metal ones.
2. That the prison yard be oiled to keep down the dust. Sprinkling with water is inadequate for the reason that on hot, windy days the ground is dry within a very few minutes after sprinkling, the dust is then blown about as badly as before.
3. That a convict tuberculosis farm be provided somewhere outside of Manila and that all prisoners afflicted with tuberculosis be sent there. Provision should be made so that prisoners in fair condition of health may do a certain amount of work in the open air.

RAT-PROOF BUILDINGS.

All the buildings within the walls have concrete floors, so that they are practically rat proof. During the past six months the wooden floor in the large storehouse has been replaced with concrete, so that there are few places left for rats to hide in this building.

It will be noted that no cases of plague or cholera developed among the prisoners in Bilibid during the period covered by this report. One suspected death from cholera proved negative on autopsy.

BIRTHS.

During the past six months five women have given birth in Bilibid. It would seem best for both mothers and children were these women kept somewhere else than in prison until after parturition at least. It is recommended that they be sent to Hospicio de San Jose instead of Bilibid.

PROPERTY DIVISION.

The following extract is taken from the report of the chief of division:

This division has been heavily handicapped during this period by the absence, on account of illness, of the chief of the division during the month of July and by the presence of the Auditor's representative and his assistants taking inventory of the Bureau property. It was necessary to turn over to them two of the division clerks, and for many days the entire force including two borrowed from the clerical division assisted in the work. It has not as yet been completed.

I wish again to express my appreciation of the work of the subordinates of the division. They have worked overtime without a murmur and are entitled to such consideration as can be shown them.

During this period 287 general requisitions were received and filled.

They originated at the following stations:

Provincial requisitions	93
Health stations	57
Assistant Director's office	2
Clerical division	7
Statistical division	1
Sanitary engineering division	6
Board of Medical Examiners	1
Board of Pharmaceutical Examiners	1
Philippine General Hospital	25
San Lazaro Hospital	6
Baguio Hospital division	7
Culion leper colony division	10
Southern Islands Hospital division	11
Bontoc Hospital division	9
Prison sanitation division	7
San Juan Tuberculosis Hospital	4
Butuan Hospital	2
St. Paul's Hospital	1
Central Free Dispensary	7
St. Luke's Hospital	5
Iwahig penal colony	12
Santo Tomas University	4
Day Nursery	3
Christian Hospital	4
Bureau of Health exhibit for 1914 Philippine Exposition	2
Total	287

At the same rate for the next six months this would show an increase of 32 requisitions for the year over the fiscal year 1913.

Sixty-six requisitions for supplies to be paid for by the requisitioners were received and filled during the six months as compared with 155 for last year. To obtain the supplies requested, 114 requisitions were prepared and forwarded to the Bureau of Supply.

Ninety-nine requisitions were required to fill the printing requests, as compared with 286 for last year.

Twenty-nine requisitions for commissary supplies were received from the following sources: Philippine General Hospital, 7; San Lazaro Hospital, 8; Culion leper colony, 9; Baguio Hospital division, 4; Bontoc Hospital division, 1.

Vaccine report.

	Units.
On hand July 1, 1913	34,700
Received during the six months	1,317,000
Total	1,351,700
Issued during the six months	1,322,200
Remaining on hand December 31, 1913	29,500

During this period 188 shipments were made by boat and 54 by mail, requiring 242 bills of lading.

Simple-remedy packages Nos. 1, 2, and 3 were prepared and shipped as follows:

	No. 1.	No. 2.	No. 3.
On hand July 1, 1913	21	5	2
Manufactured during the last six months	100	120	
Total	121	125	2
Issued during the last six months	87	107	
On hand December 31, 1913	34	18	2

Interbureau vouchers and bills were received from the following sources: Bureau of Supply, 605; Bureau of Prisons, 6; Bureau of Treasury, 2; Bureau of Education, 1; Bureau of Science, 7; Cebu Trade School, 1; Bureau of Posts, 3; Philippine School of Arts and Trades, 2; division of cold storage, 6; Bureau of Printing, 7; Bureau of Public Works, 2; open market, 145; total, 787.

The opening of the Culion store during this period and the granting of authority for this division to purchase supplies for the same without the intervention of the Purchasing Agent has resulted in considerable extra work. Comparison of the prices paid with those paid for the first two shipments by the Bureau of Supply shows a decided saving, aside from the 10 per cent surcharge and it is believed that as we become more familiar with the purchase of this class of supplies they will be obtained still more advantageously.

DIVISION OF SANITARY ENGINEERING.

The division of sanitary engineering continues to exercise control, either directly or in a supervisory or advisory capacity, over all structural sanitation throughout the Philippine Islands.

During the period covered by this report the following work was accomplished in the city:

Direct control of house sanitation in Manila, including the issuance of structural sanitary orders. The compulsory connection of premises, by house owner, to the new sanitary sewer. Direct control of building operations with reference to matters pertaining to questions of light, ventilation, drainage, and location of buildings. Supervisory control of plumbing operations, including plumbing inspection. Advisory control and assistance with reference to general questions of municipal sanitation, sanitary barrio construction, preparation of new ordinances, etc.

Five hundred and seventy orders for the correction of insanitary structural conditions were complied with; 326 buildings were connected to the sanitary sewer; 1,207 projects for building operations were acted upon; 15 persons were prosecuted for failure to comply with sanitary orders; 46 design and drafting projects were undertaken with reference to general Bureau of Health matters.

Provincial work is generally of an advisory or consulting nature. The chief features of provincial work have been as follows:

Three visits of inspection to Antipolo, Rizal, and preparation of an ordinance for the installation and operation of public convenience stations and sanitary pails.

The preparation of plans for a new concrete and frame service building for the Southern Islands Hospital at Cebu.

Two visits of inspection, the preparation of plans, and general supervision of construction work of the Culion leper colony.

One visit of inspection was made to Mariveles quarantine station for the purpose of studying existing conditions with a view of adapting them for use at the Culion leper colony.

Caloocan was visited on October 7, 1913, and a report made to the Manila Railroad Company with reference to the improvement of existing sanitary conditions at the railroad yards.

Sibul Springs was visited on July 11, 1913, as a result of which a report was submitted with reference to improving the condition of the Sibul public baths.

The Province of Bataan was visited on October 2 and 3, 1913, and, accompanied by Governor Maximino de los Reyes, an inspection of the proposed site of the new municipal center of the new municipality of Hermosa was made.

Lucena was visited on November 8 and 9, 1913, and recommendations made for the control of building operations with special reference to the area burned during the previous month.

Cavite was visited November 21, 1913. The public convenience stations at Caridad and San Roque were inspected in the company of Dr. Jose Mascuñana, district health officer. Efforts are now being made toward the extension of the public convenience station system throughout the municipality.

Baliuag was visited on December 6, 1913, and a report submitted on the effects of the fire of November 30, 1913.

SAN LAZARO HOSPITALS DIVISION.

The report of the San Lazaro Hospitals division is for the most part a statement of the operations of the various departments which make up the division:

CHOLERA DEPARTMENT.

The occurrence of 2 cases of cholera in August, followed by 8 in September gave warning of the return of this disease, the absence of which from the wards for a comparatively long period increased somewhat the task of preparing for an epidemic. However, the entire hospital personnel responded most willingly and faithfully to every demand upon their mental and physical resources. Upon instructions from the Director of Health, arrangements were made as quickly as practicable for the accommodation of 100 cholera patients at a time. Fortunately this number has not yet been exceeded. One ward was thoroughly screened for the use of cholera suspects, carriers, and convalescents. An emergency room was equipped for the prompt treatment of cholera patients on admission and as long thereafter as intravenous injections were required. Into this room patients were brought first and treatment by intravenous injection of saline solution was usually being given within a few minutes after their arrival. Sterilized solution for intravenous use were kept at the proper temperature by means of a fireless cooker. Electric heaters placed beneath the beds enabled us to dispense with the use of hot water bags and to maintain the proper temperature with the small available force of trained help thus avoiding the necessity for employing untrained assistants in the cholera ward.

DIPHTHERIA DEPARTMENT.

But one true diphtheria case was treated in this department during the past six months. Of two suspected cases received from the General Hospital one proved to be broncho-pneumonia and the other showed only renal lesions.

INSANE DEPARTMENT.

An average of 230 male and 50 female patients occupy this department.

There have been more applications for private rooms than the number of such rooms available, and more space should be provided.

During the first few months of the past semester an examination was made of the blood serum of 160 male patients with the result that 48, or 30 per cent, were found positive for the serum reaction for lues. It is the intention to examine these patients more carefully later and begin treatment of any that offer hope for amelioration of their condition.

LEPER DEPARTMENT.

The leper department is under the direct supervision of Doctor Mercado, who has had encouraging results with the chaulmoogra-oil treatment.

The statistics of this department and a description of the treatment will be found elsewhere.

PLAGUE DEPARTMENT.

Two cases of plague were treated in this department during the past semester, both of the bubonic form. Five suspected cases were received for observation, but proved negative.

TETANUS DEPARTMENT.

There were treated in this department 17 cases of tetanus of whom 6 recovered. Many of the deaths were of cases received after respiratory spasms had set in and the patients were moribund.

Three of the cases that recovered received intravenous injections of from 10,000 to 15,000 units of antitetanus serum in from 300 to 700 c. c. of a 0.9 per cent sodium chloride solution and in one case with equal parts of this solution and a 0.5 per cent sodium bicarbonate solution. This method seems preferable, especially when a serum of low valence is the only one available so that in order to give the desired number of units something over 100 c. c. of serum is required. Even where sera of higher valence are at hand the use of the intravenous injection appears to be beneficial. In order to avoid exciting spasms during the operation, especially in children, chloroform inhalation is necessary in some cases.

One case with recovery received an intradural injection of 5 c. c. of a 25 per cent solution of magnesium sulphate into the spinal canal. This, in addition to bromides and ⅛ grain of morphine, secured for this patient a peaceful sleep of some twelve hours with comparative freedom from spasms for six hours longer.

TUBERCULOSIS DEPARTMENT.

The accommodations available here for tuberculosis cases are limited to the beds not required at any given time for dangerous communicable diseases as specified by law, hence during an epidemic the number of tuberculosis cases that can be received is diminished accordingly. An effort is made to care for as many as possible, but a few vacant beds must be kept for emergencies. However, even during the recent cholera epidemic the number of tuberculosis patients was not decreased below 22. It was possible to receive all cases in whose sputum the bacilli of tuberculosis were numerous, thus rendering it advisable to segregate them in order to avoid infecting others. Latent tubercular cases were not admitted. There were 285 advanced cases treated during the half year.

It would seem to be a true economy to provide another pavilion for tuberculosis patients. It would seem desirable to systematize such segregation since the protection afforded by the segregation of the only case in a family of 10 is much more desirable than to take 1 case from a household where 5 others are already infected. In the first instance 9 persons would be protected by the segregation of 1 tuberculosis case, while in the second 5 persons would have to be segregated in order to protect the remaining 5.

GENERAL DEPARTMENT.

A case resembling scarlatina in a native Filipina was admitted to this hospital November 5. Discharged. No history of contact with a similar case could be elicited. No definite diagnosis was made.

One case of rabies was under observation.

The other cases treated during the year included mumps, meningitis (pneumococcic and tubercular), broncho-pneumonia, dysentery, cancer, nephritis, varicella, varioloid, variola, gastroenteritis, and measles.

RECOMMENDATIONS.

It is imperative that a new sanitary kitchen be provided as well as a dining room for the insane.

A new concrete ward for dangerous communicable diseases is also necessary as previously recommended, particularly if, as seems probable, plague and cholera have to be cared for at the same time.

A rat-proof general storeroom is needed and the remodeling of such parts of the present buildings as may be necessary to make them rat proof.

It is also recommended that the 3 hectares of land within the original boundary walls of San Lazaro Hospital, in the rear of the leper department, be restored to the jurisdiction of this hospital, since it is separated from the leper department by a partition wall but 8 feet high over which patients can easily escape, whereas, the walls around this area are some 12 or 15 feet high and with slight repairs can be made quite secure while the land could be made useful in giving outdoor work and exercise to such patients as are able to take up horticultural work, which would be of benefit to the hospital.

OBSERVATIONS ON THE TREATMENT OF A SERIES OF ONE HUNDRED AND SIXTEEN CASES OF CHOLERA IN SAN LAZARO HOSPITAL.

[Extract from a report by Dr. A. C. Garton, temporarily in charge of the hospital.]

CHOLERA SERIES, SAN LAZARO HOSPITAL, 1913–14, TO JANUARY 31, INCLUSIVE.

The series of cholera cases including those occurring in the month of January, 1914, numbers 116 cases, of which 113 were positive both clinically and bacteriologically and 3 which presented the typical appearance of acute cholera and under intravenous treatment reacted similarly to other true cholera cases.

The following general symptoms characterized the disease:

Excessive vomiting, thirst, hunger marked; frequent painless and copious serous evacuations, borborygmi, colic, rapid shallow respiration, dyspnœa, cool breath of characteristic odor, cyanosis, aphonia, shrunken integument, and cramps particularly of the extremities, blue-black nails, clammy perspiration, puttylike consistence of integument, sunken eyes, anxious expression, anuria, no loss of consciousness, imperceptible radial and frequently temporal pulsation, low axillary with high rectal temperature and finally the isolation of the cholera vibrio from the stool specimens.

The visitation seems to have been an epidemic of average severity, since of the 116 cases 79 required intravenous injections, having been received in a state of collapse, 162 injections in all were given, an average of two for each patient. One had ceased breathing before the intravenous was begun but with artificial respiration five minutes was resuscitated while the intravenous was being given but eventually died after three days during which frequent injections had been given.

While the number of cases is small, it is sufficient for the purpose of comparison with previous epidemics in regard to symptoms, treatment, and mortality, the features to be considered in this paper.

This series of cases covers the period from August, 1913, to January, 1914, inclusive, and is therefore fairly comparative with previous greater epidemics extending over approximately the same seasons.

The following table shows the mortality reported for various epidemics and under various treatments at San Lazaro Hospital, at Santa Mesa Hospital in 1902, and for Manila including those dying without hospital treatment:

Date.	Locality.	Cases.	Deaths.	Mortality.
				Per ct.
1902	San Lazaro: Acetyl-benzoyl peroxide under Dr. Paul C. Freer	120	84	70
1902	Santa Mesa Hospital	186	152	81.7
1902	Santiago Hospital	1,001	696	69.53
1908-9	San Lazaro	517	263	51
1910	San Lazaro:			
	Sodium chloride intravenously	56	40	71
	Sodium bicarbonate intravenously, or sodium acetate intravenously.	55	28	51
1910	Manila, total	1,186	819	69.05
1913-14	San Lazaro: Combined sodium chloride and sodium bicarbonate intravenously. Of this series, however, only those admitted after Nov. 1 received the present treatment, among whom the mortality was as follows: November, December, January, 57 cases and 10 deaths, or a mortality of 17.5 per cent. Of these last 10, 3 were received late in the disease with convulsions evidently due to renal insufficiency which was well established, 1 being a child sick 5 days, and the others with advanced chronic nephritis, 1 also showing marked arteriosclerosis and syphilitic lesions. Three others died within 6 hours after admission, and another had tuberculosis and malaria in addition to cholera.	116	35	30

NOTE.—Doctor Garton's figures refer for the most part to a declining epidemic of small proportions, and are therefore not conclusive.—V. G. H.

The restoration of the renal function is the chief desideratum after the stage of collapse is over, and, if urine is not excreted within thirty-six hours prompt action must be taken; frequently a second injection of sodium bicarbonate solution will be followed within a few hours by the voiding of several hundred cubic centimeters of urine, which gives a favorable prognosis for rapid convalescence. In addition, dry cupping, digitalin, and strophanthin were used with good results.

If the cardiac tone is poor, with arythmia, soft pulse, and dyspnœa, it is dangerous to push the intravenous, but it may be given safely by using a small needle and administering but a liter at a time preceded by strychnine and digitalin.

Since November 1, in the present series there has been used a combination of a modified Rogers' solution and sodium bicarbonate, the potassium chloride of Roger's formula being omitted, using formula, per liter, $NaCl$ 9.0, $CaCl_2$ .4, and $Na_2 CO_3$ 0.5 to 0.7 per cent, in equal parts, varying the quantity according to apparent renal insufficiency. The solutions are used in equal portions during collapse. In a few cases adrenalin chloride was added, but since it was used in such cases only as seemed not to be responding to other treatment, it is not surprising that there were fewer recoveries in cases where it was used than where it was not used.

As stimulants strychinine, digitalin, strophanthin, ammonium carbonate, and external heat were used. Atropin was employed in many cases and it appears to be indicated therapeutically since it is an antidote for several of the toxins which have been found in cultures of the cholera vibrio as well as in various forms of food poisoning, such as neurin, muscarin, and others.

In cases with profuse perspiration and continuous evacuation where it seemed necessary to give an intravenous every few hours, a few hypodermic doses of 1/100 grain of atropin sulphate decreased the perspiration and in conjunction with other medication apparently effected some improvement. It is possible that the profuse perspiration is a conservative effort to rid the system of a great excess of toxin and should not be checked.

It is believed that the atropin may have a definite value in the treatment of cholera in selected cases, possibly where there is tuberculosis also, but in the majority of cases it is not necessary.

Camphorated oil was used hypodermically in many cases as a stimulant.

Oral medication began with potassium permanganate and calcium chloride in solution; later calcium permanganate was used with apparent benefit, since it has seemed that those who drank most freely of the solution during the first two or three days improved more rapidly than those who took less.

SOUTHERN ISLANDS HOSPITAL DIVISION.

The report of which the following is an abstract is the second since the opening of the institution on April 1, 1913.

From July 1 to December 31, 1913, the number of patients in all departments has shown a marked increase; the services rendered by the gynecological, eye, ear, nose, and throat clinics have been materially extended.

Patients in the Province of Cebu and those of neighboring islands are realizing that in this institution exists a valuable service of which it is theirs to take advantage. This knowledge was further extended during the Visayan Exposition-Carnival when thousands of persons visited the carnival grounds which were located upon the plaza surrounding the Osmeña Fountain, within a short distance of the hospital; many of these visited the hospital daily and now realize the benefits to be obtained by all classes when its service is made use of.

Some idea of the increased service rendered by the hospital during the past six months may be gathered from the following comparative table:

Class of service.	3 months, April-June, 1913.	6 months, July-December, 1913.	Increase, based on period of 6 months.
			Per cent.
Visits to hospital clinic, by outpatients	1,239	5,342	115
Prescriptions filled for free and charity patients	332	1,687	154
Total number surgical dressings	1,957	7,038	80
Surgical dressings (outpatients)	1,069	4,907	129
Surgical dressings (hospital cases)	888	2,131	20
Major operations performed	15	45	50
Minor operations performed	64	225	75
Total number of patients admitted to hospital	114	356	56
Free, government and charity cases	81	257	59
Pay cases	33	99	50
Laboratory examinations (pathological)	81	610	276

SUBSISTENCE, ETC.

The average daily cost of subsistence of the nursing staff and patients during the past six months was ₱0.67 per capita, a reduction of 7 centavos a patient, being attributable to a better rate having been obtained on the cost of bread and on some other items through favorable competition; another factor which contributed to this result was the elimination of one or two items in which slight waste had occurred during the first few months after the hospital opened. Endeavor is constantly being made to furnish a rational well-balanced diet for subsisted members of the staff and for the patients, with sufficient variety and of as good quality as is consistent with the economy which must of necessity be exercised in the maintenance of any hospital. As there is no local competition in the sale of cold-storage items of subsistence, the local retail prices have to be paid for meats, butter, etc. There is but a small variety of fresh vegetables raised in the vicinity of Cebu, which fact also increases the expenses. The cost of subsistence may be legitimately and materially further reduced when the small refrigerating plant which has been under consideration can be installed in the hospital.

BUILDINGS AND GROUNDS.

The excavating and grading of the rice-paddy land, which had lain idle some years facing the main street has been completed, and since the last report the hospital reservation has been entirely fenced, with two entrances on the north or front side; oil palms and ornamental shrubs and plants received from Manila, supplemented by many purchased in the Province of Cebu, have been planted in accordance with the plans outlined by the late Mr. J. C. Mehan; and the general appearance of the grounds has been additionally enhanced by a general cleaning out of the dense growth of underbrush and weeds on the south side of the reservation.

The erection of the hospital for contagious diseases and of the service building has been temporarily suspended; hence the use of temporary structures and quarters for a portion of the staff and for the laundry, morgue, storerooms and woodshed is still a necessity. A camp of six tents has been established upon the hospital reservation for the isolation and care of patients suffering from dangerous communicable diseases. Three of these tents have been equipped with floors; water and electric light service has also been supplied to the camp.

Recommendation—Owing to the inconvenience and extra expense caused by several suspensions of the water supply due to breaks in the mains, on one occasion there being no water available through the mains for several days, it is recommended that a storage tank of at least 12,000 gallons capacity be erected as soon as funds can be made available for this purpose.

"GOTA DE LECHE" BRANCH OF THE HOSPITAL.

The work done by this society in Manila has been started by this office on a small scale, it having been made possible by an allowance from Bureau of Health funds of ₱100 a month. The work was started October 15 and since that time 30 starving babies have been saved. The actual work is done by the provincial nurses who have an office in San Nicolas where mothers bring their children and receive properly prepared milk and instructions on infant care in general. We have received contributions from outsiders, but the most valuable contribution is a present of 3 cases of milk monthly from the Nestle and Anglo-Swiss Condensed Milk Company. It is the intention of the district health officer to turn the entire work over to a society formed for the purpose if sufficient local interest can be aroused. By so doing an unlimited number of children can be cared for instead of 20, the present limit.

STATISTICAL DIVISION.

The following extract taken from the report of the chief of the statistical division of the Bureau of Health is interesting as showing the character and scope of the work:

There were registered in Manila during this period 4,953 birth, 3,947 deaths, and 1,051 marriages.

The recording in the register of all tuberculosis cases and other quarantinable diseases occurring in the city of Manila was carried out by this division, as well as the recording of data on hospital transfer slips of the persons affected by the same, and reports thereof were made weekly.

The provincial reports (Form 46) were revised and consolidated for the annual reports.

The deaths among Americans and foreigners occurring in the provinces were registered, and duplicate copies of the certificates made in the case of Americans for the information of the chief of police. The certificates of deaths among lepers at the Culion leper colony were also registered and notification cards forwarded to their respective municipalities.

Cases of more than ordinary pathological interest occurring in the provinces since the year 1904 were compiled from quarterly reports (Form 46) and consolidated by this division.

Consolidations were made of vaccination reports (Form 59) received from 24 provinces performing nonsystematic vaccinations amounting to a total of 499,649 and also up to the last report received from the province of Leyte, where systematic vaccinations are being carried out, amounting to 82,127.

Reports covering the number of cases treated in hospitals and dispensaries were compiled. These were from the Philippine General Hospital, Bilibid Hospital, Corregidor Hospital, Butuan Hospital, Southern Islands Hospital, Bontoc Hospital, and Baguio Hospital.

The investigations previous to the admission of orphans to the Hospicio de San José, as well as the recording of admissions to and discharges from that asylum, of Government pensioners, and the revision of the accounts of same, were carried out by this division.

An accountability book of receipts from burial permits, exhumations, extension permits for vaults in Paco Cemetery, the removal of remains to the city of Manila or from Manila to the provinces and other countries, and for transcripts of births and death certificates was kept. This work requires the time, on many occasions, of a clerk in addition to the one regularly in charge of it.

The receipts during the six months covered by this report suffered a great decrease compared with those of the corresponding period for the year 1912, due to the closing of the Paco Cemetery, which took place on July 1, 1913.

The following fees were collected during the period covered by this report:

3435 burial permits	₱1,717.50
41 extensions for one year (adults)	270.60
1 extension for two years	13.20
5 extensions for one year (children)	16.00
1 extension for two years	6.40
162 exhumation permits	162.00
17 transit permits for entrance	17.00
73 transit permits for exit	73.00
Transcripts of records:	
12 certificates of birth (under 5 years)	12.00
4 certificates of birth (over 5 years)	8.00
55 certificates of death (under 5 years)	55.00
5 certificates of death (over 5 years	10.00
Total	₱2,360.70

Besides the number of paid permits issued as stated in the above table, there were issued gratis 548 permits in accordance with the Revised Ordinances of the city of Manila.

PHYSICAL EXAMINATIONS.

The medical examination required for the Philippine civil service, Philippine Training School for Nurses, and motor-vehicle drivers is conducted by the Bureau of Health at Station J, Intramuros.

The following table shows the number of persons examined:

	Passed.	Rejected.	Total.
First-class patrolman	10		10
First-class fireman	9		9
First-class prison guard	9		9
Second-class prison guard	20	1	21
Second-class fireman	36	1	37
Third-class patrolman	91	3	94
Third-grade examination	8		8
Second-grade apprentice	72	3	75
Messenger	9		9
Second-grade examination	14		14
First-grade clerk	4		4
Machinist	2		2
Nurses, male	4		4
Junior surveyors	6		6
Clerks	129		129
Motor drivers	442	2	444
Total	865	10	875

Reasons for rejection.

Poor vision (motor driver)	2
Under weight	3
Under height	3
Pulmonary conditions	2
Total	10

BOARD OF PHARMACEUTICAL EXAMINERS.

The Board has held one examination, on July 1, 1913, at which 87 applicants presented themselves. Of this number, 5 attained the required average and received certificates.

There have been issued during this period 20 apprentice certificates, 2 Chinese druggist certificates, and 1 temporary certificate without examination.

The following collections and disbursements have been made by the Board:

All collected during the six months, examination fees	₱900
Insular Treasurer's receipts	900
Balance on hand Dec. 31, 1913	

Disbursements.

Salary of secretary-treasurer	₱150
Fees for two members for 87 applicants examined, at ₱4 each	696
Total	846

The Board of Pharmaceutical Examiners is composed of the following pharmacists: Hugo Salazar, president; Manuel Yamson, member; and Andres Garcia Mayoralgo, secretary-treasurer.

HOUSEHOLD REMEDIES.

Under the provisions of Act 597 as amended by Act 2236 regulating the practice of pharmacy in the Philippine Islands, grocers and other merchants are permitted to sell household remedies, but as there was no definition of household remedies, the privilege in many cases was extended far beyond the contemplation of the law, hence it became necessary for the Director of Health to issue a circular naming what articles could be sold. Such a circular was issued August 28, 1913, in part as follows:

* * * * * * *

The Board desires also that a strict watch be kept to see that all stores, which are not directly in charge of registered pharmacists, comply strictly with Act No. 2236, which provides that only househld remedies may be sold by such stores as are more than 5 kilometers distant from a registered pharmacy. The list of household remedies approved for sale by the Board of Pharmaceutical Examiners is as follows:

Flores de manzanilla.
Flores de tila.
Flores de sauco.
Hojas de sen.
Hojas de malvas.
Hojas de romero.
Semillas de cilantro.
Semillas de anis.
Leño de cuasia.
Corteza de quina.
Corteza de simaruba.
Corteza de frutos de granado.
Corteza de frutos de mangostan.
Raiz de genciana.
Raiz de ruibarbo.
Raiz de grama.
Raiz de caña.
Raiz de china.
Licopodio.
Linaza en polvo.
Mostaza en polvo.
Acibar.
Asafetida.
Aceite de recino.
Aceite de bacalao.
Aceite de manzanilla.
Aceite alcanforado.
Alcohol alcanforado.
Amoniaco líquido.
Acido bórico.
Vaselina boricada.
Bicarbonato de sosa.
Fenacetina, dosificada en tabletas, obleas o cápsulas.
Carbonato de Magnesia.
Subnitrato de bismuto, dosificado en papeles, tabletas, cápsulas u obleas.
Sales de Quinina, dosificadas en píldoras, tabletas, cápsulas u obleas.
Antipirina, dosificada en tabletas, obleas o cápsulas de 0.10 a 30 centígramos.

Pastillas de santonina de a 1 centígramo.
Pastillas de tolú.
Pastillas de regaliz.
Pastillas de menta.
Pomada de belladona.
Pomada de precipitado blanco.
Pomada de azufre.
Unguento basilicon.
Eter sulfurico en frascos de 10 c. c.
Bromuro potásico dosificado en tabletas.
Yoduro potásico dosificado en tabletas.
Cápsulas de terpinol.
Salol.
Dermatol.
Yodoformo.
Jarabe de tolú.
Sal catártica.
Cremor de tártaro.
Maná.
Magnesia calcinada.
Tintura de arnica.

BOARD OF MEDICAL EXAMINERS.

The Board of Medical Examiners consists of Dr. A. P. Goff, president; Dr. Miguel A. Velarde, member; and Dr. C. E. Norris, secretary-treasurer.

The Board held examinations during the period covered by tne report as required by law. Thirty applicants for registration as doctors of medicine and licentiates of medicine were examined, 1 of this number failed to obtain the required average or passing grade; 11 applicants for registration as cirujano ministrantes were examined and 3 of this number failed to obtain the required average. Six doctors of medicine, graduates of the University of the Philipines, were registered, in accordance with Act 1632, without examination.

The following amounts were collected and deposited in the Insular Treasury:

	Number.	Amount.	Total.
Doctors and licentiates of medicine	33	₱30.00	₱990.00
Cirujano ministrantes	6	10.00	60.00
Total	39	....	1,050.00

The expenditures were as follows: Examination fees to Dr. Miguel A. Velarde at rate specified in Act 310, ₱172.

BOARD OF DENTAL EXAMINERS.

The Board of Dental Examiners is organized under the provisions of Act 593.

The following summary of the operations of the Board for the short fiscal year is taken from the report submitted by the secretary-treasurer:

2 licenses issued to graduate dentists	₱40.00
7 licenses issued to undergraduates	70.00
Total receipts for licenses	110.00

INFORME DE LA OFICINA DE SANIDAD DE LAS ISLAS FILIPINAS

PARA EL CORTO AÑO FISCAL DESDE 1.º DE JULIO DE 1913 A 31 DE DICIEMBRE DE 1913

VICTOR G. HEISER, M. D.
DIRECTOR DE SANIDAD
Cirujano, Servicio de Higiene Publica de los Estados Unidos.

INFORME DEL BURÓ DE SANIDAD PARA LOS SEIS MESES QUE FINALIZARON EL 31 DE DICIEMBRE DE 1913.

DEPARTAMENTO DE LO INTERIOR,
BURÓ DE SANIDAD DE LAS ISLAS FILIPINAS,
Manila, 13 de Febrero de 1914.

SEÑOR: Tengo el honor de someter adjunto el siguiente informe de los trabajos médicos y sanitarios, con cuadros demográficos y estadísticos, de la Oficina de Sanidad para los seis meses que finalizaron el 31 de Diciembre de 1913. A causa de haberse cambiado el año económico por la Legislatura de modo que corresponda con los años naturales, este informe comprende únicamente las transacciones de seis meses.

INCREMENTO DE LA POBLACIÓN.

Tenemos actualmente más de 60,000 defunciones menos en las Filipinas al año que durante 1905. Esta reducción se debe casi enteramente a las enfermedades prevenibles y puede ser considerada como índice del efecto de los trabajos sanitarios en las Islas Filipinas. Hay lugar, sin embargo, para ulteriores mejoras. La tuberculosis, la malaria, el beriberi y las enfermedades intestinales, todas las cuales son prevenibles, continúan siendo responsables de más de 100,000 defunciones anualmente. Los resultados que ya se han obtenido deben de actuar como estímulo para el esfuerzo de conseguir una mayor disminución en este número durante los próximos años. Los conocimientos para llegar a conseguirlo los tenemos a la mano y solo hace falta aplicarlos con tenacidad. Ya hemos dado el primer paso hacia esa meta.

Calculamos que la malaria ha sido responsable de por lo menos 25,000 defunciones anualmente. Si cada víctima pudiera haber sido tratada con una cantidad adecuada de quinina, casi todas dichas vidas pudieran haber sido salvadas. Con la cooperación de varios ramos del Gobierno, se han hecho arreglos para la venta de quinina a un precio nominal por los tesoreros de más de 700 municipios y *townships* del Archipiélago. Para los que no pueden pagar ni siquiera esa pequeña suma existen varios millones de dosis de quinina disponibles para la distribución gratuita.

Los conocimientos respecto a la manera cómo puede prevenirse el beriberi se van diseminando rápidamente entre las masas, y es ahora de esperar que una reducción en el número de defunciones por esta enfermedad tenga lugar.

Una circular informativa respecto a la debida disposición de excrementos humanos acaba de ser terminada, y la adopción en general del sistema que se preconiza en ella resultará en la salvación de muchos miles de vidas.

El sistema de hospitales en Manila y en las provincias ha sido de tal manera extendido que apenas podemos razonablemente esperar más socorros adicionales del Gobierno Insular para su sostenimiento. Todo ulterior progreso en esta línea debe provenir de fondos aportados por los gobiernos provinciales o municipales o por individuos particulares.

De lo que antecede es evidente que hay bastante trabajo por hacer, que si se efectuara solamente, pagará gruesos dividendos en forma de vidas humanas salvadas, lo bastante para la inversión de los fondos que ahora tenemos disponibles. Hasta que haya más fondos disponibles no se pondrán emprender otros proyectos que requieren el gasto de sumas respetables.

COMPARACIÓN DE LOS RESULTADOS CON LOS FONDOS DISPONIBLES.

Es dudoso que otro país haya conseguido mayores beneficios en más salubridad y menor mortalidad con tan pequeña inversión de fondos como las Islas Filipinas. La gran reducción en la mortalidad a que nos referimos más arriba ha sido realizada a un costo de unos 20 centavos anuales por cabeza, y cuando se tiene en cuenta que esos resultados fueron obtenidos bajo un régimen estrictamente civil, en el que cada obstáculo había de vencerse por la persuasión o por un laborioso trámite judicial, es verdaderamente notable que los resultados puedan compararse favorablemente con los obtenidos bajo métodos más coercitivos.

UN CRÉDITO DE ₱100,000 PARA EL MEJORAMIENTO DE LAS CONDICIONES DE VIDA DE LOS POBRES.

La Ley de Presupuestos de la ciudad de Manila para el año fiscal de 1914, aprobada por el Gobernador General, destina un fondo de ₱100,000 para el mejoramiento de las condiciones de vida de los pobres y dispone que para su desembolso cuente con la aprobación conjunta del ingeniero de la ciudad y del Director de Sanidad. Se hicieron en seguida muchos pedidos de los fondos de este presupuesto que eran, en su mayor parte, para el mejoramiento de defectos pequeños. En vista de la urgente necesidad de encontrar edificios adecuados para albergar muchos vecinos pobres de la ciudad de Manila que ahora viven en tugurios que deben ser inmediatamente condenados, creemos que estos fondos deben de ser gastados en el mejoramiento de las condiciones de albergue del mayor número de ellos. En resumen creemos que el mejor plan que debe adoptarse es el sanear terrenos que den el mayor número de lotes al menor precio posible en vez de gastar la suma en remediar pequeños defectos aquí y acullá. En unión de la oficina de ingeniero de la ciudad hemos inspeccionado varios de dichos terrenos, y ahora están pendientes de la Junta Municipal las recomendaciones para la inversión de dicho dinero.

PROPAGACIÓN DEL ATLETISMO EN LAS FILIPINAS.

El estudio más somero de las condiciones físicas del pueblo filipino resultará pronto en la conclusión inevitable de que por lo general es un pueblo débil bajo el punto de vista físico y de que antes que puedan aguantar la tensión y el esfuerzo que requiere la alta civilización moderna necesitan de un organismo más robusto. Uno de los afanes más constantes de la Sanidad ha sido por lo tanto fomentar la propagación del atletismo en el pueblo. A los comienzos del régimen americano se alentó a las escuelas que hicieran una campaña activa para llevarlo a cabo, y sus esfuerzos recibieron el apoyo de todos los ramos del Gobierno. Hace pocos años apenas había un equipo de pelota o de balompié, ni siquiera afición a los fatigosos ejercicios al aire libre, mientras que ahora apenas hay pueblo o aldea en las Filipinas en que no se juegue a la pelota con actividad. Los progresos en este particular han sido tan rápidos que en este mismo instante las Islas pueden ufanarse de muchos atletas que por su estatura y peso pueden compararse favorablemente con los de otros países. La gente joven, así como muchos de los de más edad, está aparentemente convencida de la conveniencia del desarrollo físico y cada día se nota en todas partes mayor interés por los deportes al aire libre.

LA MORTALIDAD EN MANILA SIGUE DISMINUYENDO.

La mortalidad en la ciudad de Manila, a pesar de la aparición del cólera, demuestra mayor disminución. Durante el último año fiscal el promedio fué de 26.69 por 1,000 anual, mientras que durante este año fiscal fué de 24.98. La mortalidad entre los americanos fué de 10.34. Si la mortalidad se computa sobre la base del censo de Enero de 1914, sería de 23.18.

LA MORTALIDAD ENTRE LOS EMPLEADOS DEL GOBIERNO.

La mortalidad entre los empleados del Gobierno durante el período que comprende este *report* fué de 5.6 por 1,000 siendo el promedio entre los americanos de 6.39 y entre los filipinos 4.77

por 1,000. Aún tomando debidamente en cuenta las condiciones favorables que rodean a los empleados públicos, especialmente con respecto al hecho de que pocos de ellos son ancianos, este promedio dice bien de las condiciones climatológicas de las Islas Filipinas.

ESTADO COMPARATIVO DE LAS DEFUNCIONES EN MANILA CON Y SIN ASISTENCIA FACULTATIVA.

El siguiente estado comparativo del número de defunciones en Manila desde 1904 a 1913, inclusive, durante un período de diez años, demostrará que el pueblo aprecia cada vez más los servicios facultativos y que la mortalidad va gradualmente decreciendo:

Año.	Defunciones.	Con asistencia facultativa.	Por ciento de los que recibieron asistencia facultativa.
1904	11, 033	5, 540	50. 21
1905	9, 369	5, 269	56. 23
1906	9, 528	5, 328	55. 99
1907	7, 613	4, 289	56. 33
1908	11, 180	5, 928	53. 02
1909	8, 466	4, 568	52. 02
1910	8, 507	4, 679	55. 00
1911	8, 808	4, 940	56. 08
1912	8, 536	5, 114	59. 91
1913	6, 950	4, 485	64. 53

Las anteriores cifras demuestran claramente que ha habido un aumento firme y apreciable en el número de enfermos que solicitaron y recibieron asistencia facultativa. Una comparación entre los años 1904, 1912 y 1913, demuestra un aumento de 9.70 por ciento para el año 1912 y de 14.32 por ciento para 1913 de personas que recibieron asistencia facultativa. Es bien conocido, con comparativamente pocas excepciones, que las defunciones son resultado de enfermedades que tardan bastante tiempo durante el cual los enfermos reciben asistencia facultativa en una etapa u otra del progreso de la enfermedad, pero que por motivos de indiferencia, desesperación, falta de fondos u otras razones, las personas atacadas de lentas enfermedades suspenden el empleo de la ciencia y se ponen a esperar resignadamente el fin o probablemente acuden a los remedios caseros. Como los médicos que anteriormente tenían no les asistieron en la fecha de su fallecimiento, les repugna expedir los certificados de defunción, y así obligan a los parientes y deudos a llamar al médico municipal para tales documentos, y por más que los médicos municipales averiguen si los enfermos habían tenido asistencia facultativa, es muy corriente entre dichos parientes y deudos decir que nó para evitar explicaciones.

En vista de estos hechos y tomando en cuenta la inexactitud de los datos con respecto a la asistencia facultativa, podemos afirmar que el establecimiento en Manila durante los últimos años de varios hospitales, especialmente el hospital General, en los que cada vez van siendo asistidos mayor número de enfermos, ha contribuído el aumento de los que buscan la asistencia facultativa en mayor grado que los que las cifras anteriores parecen indicar.

LA NAVIDAD EN LA LEPROSERÍA DE CULIÓN.

Es verdaderamente agradable el poder manifestar que por medio de la generosidad del pueblo de Manila se hizo posible otra vez el regalar a cada leproso en Culión un aguinaldo. Los niños de escuela de la ciudad de Manila tienen particular derecho a nuestro agradecimiento por haber recogido gran parte de estos regalos de Pascua. El Gobierno compró más de 2 toneladas de caramelitos y dulces para alegrar el corazón de los leprosos así como bastantes naranjas y otras frutas para distribuir a todos.

EL ABASTECIMIENTO DE LECHE DE MANILA.

Con excepción de la procedente de media docena de lecherías, la leche fresca que se ofrece en el mercado en Manila deja mucho que desear. Una de las razones de esto es que las vacas de las cuales proviene la mayor parte de dicha leche son cuidadas fuera de los límites de la ciudad, y son propiedad de personas que probablemente solo tienen una vaca y no tienen residencia fija, por cuyo motivo es impracticable poner en vigor los reglamentos como podría hacerse en los Estados Unidos. Mucha de la leche proviene también de la caraballa o búfalo de agua. Las grasas y otros importantes componentes de esta leche son frecuentemente el doble de lo que se encuentra en el de la vaca. Con el objeto de imitar la leche de vaca, se la diluye con frecuencia con igual cantidad o más de agua. Los proteidos quedan entonces en desproporción, así es que añaden harina de arroz. Si las grasas se han reducido entonces demasiado, se añade a veces aceite de coco. La mezcolanza resultante es de lo más malsano que hay. Una muestra de leche reconocida contenía 62,391,600 bacterias por centímetro cúbico.

Se ha hecho un progreso desesperantemente lento en proveer un edificio para la instalación de las máquinas esterilizadoras de leche donadas por Mr. Nathan Strauss, de Nueva York. La última Legislatura votó un crédito para "La Gota de Leche," sociedad protectora de la infancia, para la construcción de un edificio con la condición de que se hagan arreglos para la pasteurización o esterilización del abastecimiento de leche de Manila.

Es grato el informar, sin embargo, que unas cuantas de las mejores lecherías han hecho grandes mejoras, y algunas de ellas pueden ahora compararse favorablemente con las lecherías de primera clase de los Estados Unidos. El pequeño lechero, sin embargo, que sólo posee unos cuantos carabaos, cabras o vacas, y los cuida en sucias condiciones, continúa siendo una gran fuente de peligro y hasta que su leche pueda ser esterilizada antes de ser suministrada al público de Manila causará indudablemente perjuicios considerables.

LECHE EN LATA.

La falta de leche fresca está grandemente compensada por la importación de leche natural y leche condensada.

Durante el período que comprende este informe la importación de leche desnatada ha aumentado grandemente, y la cuestión de su prohibición será presentada a la Legislatura Filipina.

El pueblo compra la leche más barata. Los importadores y fabricantes no son lo bastante explícitos en decirle que la leche desnatada no es buena para las criaturas menores de 1 año de edad, así es que la gente compra leche desnatada y se lo da a sus hijos, privando a éstos de ciertas sustancias que son esenciales para su salud.

Con el objeto de protegerse a sí mismos, los importadores que hasta ahora han importado la leche sin desnatar, amenazan con importar también leche desnatada para poder hacer frente a la competencia en los precios. Esto acarrearía una situación formidable y peligrosa para la alimentación de la infancia, puesto que la mayoría del pueblo, especialmente de las provincias, no conoce la diferencia en valor alimenticio y se inclinará a comprar lo que sea más barato.

La misma situación se presentó en Hongkong y se la hizo frente con una ordenanza exigiendo que la leche desnatada se le pusiera una etiqueta "Inadecuado para alimentar criaturas menores de 1 año de edad." Más que esto tendrá que hacerse en las Islas Filipinas con motivo de la multitud de dialectos y porque hay mucha gente que no podrá leer las etiquetas. Por lo tanto se ha propuesto que se imponga una contribución de rentas internas sobre la leche desnatada lo suficientemente alta para que no pueda ser vendida con ventaja en la competencia.

EL ABASTECIMIENTO DE LECHE DE PROVINCIAS.

La epizootia ha destruído la industria pecuaria en todo el país, y el pueblo tiene que acudir en gran manera a la leche en lata, aunque la leche de caraballa y de cabra sigue utilizándose bastante. Afortunadamente la situación ha sido afrontada con la importación de excelente leche pura.

Importación de leche a las Islas Filipinas.

Año fiscal.	Condensada.		Natural.	
	Cantidad.	Valor.	Cantidad.	Valor.
	Libras.		*Galones.*	
1903	3, 070, 028	₱494, 732		
1904	3, 233, 052	502, 522	8, 804	₱4, 988
1905	3, 018, 376	467, 334	8, 537	7, 556
1906	3, 776, 761	568, 990	34, 879	22, 856
1907	3, 646, 264	579, 578	69, 030	54, 870
1908	4, 147, 413	698, 614	81, 669	73, 254
1909	4, 752, 733	813, 214	113, 397	94, 466
1910	6, 371, 129	951, 764	149, 656	98, 628
1911	9, 507, 983	1, 247, 082	145, 922	133, 662
1912	11, 411, 590	1, 531, 096	267, 962	220, 028
1913 Julio 1, 1912 a Junio 30, 1913	9, 927, 069	1, 443, 202	271, 765	222, 574
1913 (Julio 1.º a Diciembre 31)	6, 451, 683	889, 276	148, 139	127, 512

FALLECIMIENTO DE MR. MEHAN.

La causa del saneamiento ha perdido uno de sus mejores paladines con la muerte de Mr. John C. Mehan, ocurrida el 13 de Diciembre de 1913.

Mr. Mehan estuvo al cargo por muchos años del departamento de sanidad y transportes de la ciudad de Manila, bajo cuyo departamento estaba el cuidado de los parques públicos, y es debido en gran manera a sus esfuerzos que los trabajos prácticos en el embellecimiento de la ciudad se hubiesen llevado a cabo con el grado de éxito que se ha obtenido.

Cada uno de los periódicos editados en Filipinas publicó artículos laudatorios de la vida y obras del difunto. El siguiente sencillo y elocuente tributo fué escrito por su amigo personal Dan O'Connell, editor del Philippines Monthly:

> Uno de los mejores americanos que jamás vinieron a las Islas falleció el 13 de Diciembre, más en tanto que exista Manila así perdurará su memoria.
>
> John C. Mehan dejó muchos monumentos trás de él en hermosos cementerios, parques, mercados y otras mejoras públicas, pero mejor que todo eso dejó una reputación de integridad, honradez y pundonor acrisolados. John Mehan fué un gran hombre en todos los sentidos. Era un hombre del pueblo y trabajó incansablemente por el pueblo. Mientras otros funcionarios del Gobierno se distraían en reuniones sociales, John Mehan meditaba nuevos medios para mejorar la salubridad y recreo de los residentes de Manila. Sus manos se hallaban siempre en la bolsa para ayudar a cualquier persona menesterosa, y ningún clamor de desgracia dejó de encontrar en él un auxilio generoso. Era de un temperamento muy bondadoso, pronto a disimular las faltas de los que le rodeaban y solo ver sus buenas cualidades. Su muerte ha sido una gran pérdida para el pueblo de la ciudad.

FÓRMULAS PARA HELADOS.

En conección con la vigencia de la Ley de Alimentos y Drogas con respecto a los helados, se encontró gran número de dificultades que no se encuentran ordinariamente en los Estados

Unidos. En las Filipinas no existe prácticamente ninguna crema o leche fresca, siendo toda importada ya de Europa o de los Estados Unidos. Alegaban los fabricantes de helados que era imposible hacer helados con leche o crema en lata a la altura de los requisitos de la Ley de Alimentos y Drogas, debido a la formación de mantequilla antes de que el helado se congele debidamente. Este alegato encontramos que estaba fundado en parte en los hechos, así es que se hicieron algunos experimentos en el Buró de Ciencias. Averiguamos, finalmente, que se podía hacer un helado muy satisfactorio con leche en lata con cualquiera de las siguientes fórmulas:

Fórmula No. 1.

(Leche condensada Señorita y crema Señorita.)

	Peso.
Leche condensada Señorita (1 lata)	336 gramos.
Crema Señorita (3 latas)	456 gramos.
Azúcar	150 gramos.

Fórmula No. 2.

(Leche condensada Oso y crema marca Oso.)

	Peso.
Leche condensada Oso (1 lata)	336 gramos.
Crema Oso (1½ latas)	307 gramos.
Azúcar	150 gramos.

Fórmula No. 3.

(Leche condensada Señorita y crema marca Oso.)

	Peso.
Leche condensada Señorita (1 lata)	336 gramos.
Crema marca Oso (1½ latas)	307 gramos.
Azúcar	150 gramos.

En cada fórmula el azúcar debe de ser disuelto en un poco de agua caliente antes de añadirse. Añádase suficiente agua hervida o destilada hasta que la solución entera tenga 1 litro. El peso del helado producido de ese modo será de unos 1.1 kilógramos.

No hay ningún motivo para creer que otras marcas buenas de leche no servirán lo mismo que las marcas mencionadas en las fórmulas anteriores.

BOLETINES DE SANIDAD.

A juzgar por el número de solicitudes que se vienen constantemente recibiendo de los boletines de sanidad que se publican de cuando en cuando concernientes a asuntos de interés público, es evidente que dichos boletines son apreciados. Los siguientes boletines han sido publicados:

No. 1. Enfermedades infecciosas en las Islas Filipinas.
No. 2. El Cólera Asiático en las Islas Filipinas.
No. 3. Higiene de la Primera Infancia.
No. 4. Cólera.
No. 5. Tuberculosis.
No. 6. Disentería y Manera de Evitarla.
No. 7. Medidas contra el Cólera.
No. 8. Instrucciones para los paquetes de Remedios Simples.
No. 9. Peces venenosos de las Islas Filipinas.
No. 10. Viviendas Filipinas.
No. 11. Insectos y Enfermedades.
No. 12. Beriberi y Manera de Prevenirlo.

El último boletín, No. 13, titulado "Disposición de Residuos Humanos en las Provincias" acaba de terminarse y se halla en manos del impresor. Este boletín señala un plan práctico bajo el punto de vista legal, económico y sanitario, por medio del cual los excrementos humanos en las provincias pueden ser debidamente tratados. Incluye un modelo de ordenanza que ya ha sido adoptado en varios municipios con satisfactorios resultados en la práctica.

CONFERENCIAS PÚBLICAS.

Por medio de la vigencia de la Ley Fajardo y por asignación especial de la oficina central, muchos oficiales-médicos han dado conferencias públicas sobre temas sanitarios por el Archipiélago. El Dr. Vicente de Jesús pasó varios meses recorriendo varias provincias dando conferencias sobre temas sanitarios ilustrados con películas cinematográficas y proyecciones fijas. Estas reuniones eran casi siempre muy concurridas y las conferencias fueron recibidas con entusiasmo. Se ha comprado una máquina adicional, la cual pronto estará funcionando.

MANUAL DE LOS INSPECTORES SANITARIOS.

El Manual de los Inspectores Sanitarios del que se hizo mención en el último informe anual ha recibido los más favorables comentarios de los sanitarios de muchas partes del mundo. Así es que es mucho más de sentir que tan pronto como la obra fué enviada a los médicos e inspectores sanitarios empleados en la Oficina de Sanidad y estacionados en diferentes partes de las Islas, se hubiese encontrado tan grande oposición a unos exámenes basados sobre su contenido. Salta a la vista que antes que los funcionarios médicos del Buró puedan debidamente enseñar a sus subordinados los deberes señalados en el Manual del Inspector Sanitario tienen que estar versados en los mismos. Hay tanto bochorno en exigir a un médico que demuestre sus conocimientos, especialmente sobre hechos descubiertos desde que él se licenció, como si se le exigiera cursar el doctorado. Por medio de la amable ayuda del Colegio Médico y Farmacéutico de Filipinas, el libro ha sido traducido al castellano y estará pronto dispuesto para la distribución, pudiendo entonces examinarse en ese idioma los que lo deseen.

ESCUELA DE INSTRUCCIÓN SANITARIA.

A causa de la falta de experiencia en asuntos sanitarios y especialmente en lo relativo a la administración de la oficina entre los aspirantes a cargos facultativos en el Buró de Sanidad, se ha adoptado la práctica de exigir a dichos candidatos antes de su nombramiento que sirvan varios meses como internos en el Hospital General de Filipinas y después pasen un mes de práctica en saneamiento municipal bajo el Médico Inspector Rosario en la Estación A, en el Distrito de Meisic.

Las personas bajo este aprendizaje no se les paga sueldo.

A los funcionarios que desean ser nombrados oficiales de sanidad de distrito se les exige el curso en el Hospital General y la Estación A. Para los que desean ser nombrados presidentes de juntas municipales de sanidad, y sobre todo de un distrito municipal de sanidad sólo se les exige el curso en la Estación A. La instrucción en la Estación A comprende las siguientes materias:

Enumeración de los procedimientos.

(1) Tratamiento de las enfermedades peligrosas comunicables.	Disposición de casos y contactos. Reconocimiento de cadáveres. Obtención de muestras. Administración de sueros y vacunas.	
(2) Desinfección	Cólera, disentería y fiebre tifoidea. Peste. Difteria. Fiebres eruptivas. Tuberculosis. Campaña insecticida. Campaña vermicida. Exhumación de restos humanos.	
(3) Vacunación	Leyes y ordenanzas del país sobre vacunación. Época en que deben practicarse. Quiénes están obligados, quiénes exentos. Organización de partidas de vacunadores y sus gastos de viaje. Informes de vacunaciones.	
(4) Asistencia facultativa y dispensario gratuito en las estaciones. Casos médico-legales.	Personas indigentes. Funcionarios y empleados del Gobierno.	(*a*) En la farmacia. (*b*) Casa del médico. (*c*) Casa del enfermo.
	Presos	Únicamente en la farmacia.

- (5) Inspección
  - De casa en casa.
  - Escuelas.
  - Establecimientos con licencia.
  - Muestras de alimentos y bebidas.
  - Mercados.
  - Mataderos.
  - Fábricas de cigarros.
  - Casas de huéspedes.
  - Embarcaciones y bancas.
- (6) Molestias
  - 1. Que necesitan remediarse sin tocar a la estructura.
    - (*a*) Limpieza.
    - (*b*) Pintura de cal o aceite.
    - (*c*) Pequeñas reparaciones en el suelo y el drenaje.
    - (*d*) Limpieza de pozos negros.
    - (*e*) Instalación de cubetas.
    - (*f*) Construcciones ilícitas, etc.
    - (*g*) Disposición indebida de los desperdicios (no los de albañal).
  - 2. Que necesitan obras estructurales:
    - (*a*) Conexión con el alcantarillado, etc.
- (7) Licencias (Inspección de locales y sus condiciones higiénicas).
  - Restaurants (A, B, C).
  - Lecherías.
  - Panaderías.
  - Establecimientos de envasar.
  - Barberías.
  - Hoteles y fondas.
  - Casas de huéspedes.
  - Tabernas y *saloons*.
  - Mercados de carne fresca y refrigerada.
  - Caballerizas.
  - Lavanderías.
  - Necrocomios y funerarias.
  - Salones de baile.
  - Teatros, cinematógrafos, etc.
  - Licencias de vendedores ambulantes.
  - Industrias ofensivas o peligrosas.
- (8) Registros
  - Nacimientos.
  - Defunciones.
  - Licencias.
  - Inspección de casa en casa.
  - Órdenes de la estación.
  - Recomendaciones para extensas reparaciones.
  - Dementes.
  - Enfermedades peligrosas comunicables.
  - Casas de huéspedes.
  - Fábricas de tabacos.
  - Solicitudes e informes del laboratorio.
  - Correspondencia oficial en general.

- (9) Contabilidad de la propiedad del Gobierno.
  - 1. Propiedad no fungible:
    - (*a*) Responsabilidad de ella:
    - (*b*) Método de arreglar los documentos en caso de pérdida o destrucción.
  - 2. Propiedad fungible:
    - (*a*) Medicinas.
    - (*b*) Desinfectantes.
    - (*c*) Ciertos artículos de escritorio.
    - (*d*) Otros artículos.

- (10) Personal y disciplina........
  - Números y nombres del personal asignado; su residencia y categoría.
  - Calificaciones para el ingreso y conocimiento de sus trabajos.
  - Uniformes (si los hay).
  - Uniforme de eficiencia.
  - Método de ascenso.
  - Castigos disciplinarios.

- (11) Informes ....
  - Diario:
    - Censo (cada 2 ó 3 años).
    - Informe sanitario.
    - Ratas.
    - Desinfecciones.
    - Vacunaciones.
  - Semanal:
    - Billetes de vendaje.
    - Ratas.
    - Inspectores sanitarios auxiliares (asignación a subdistritos).
  - Mensual:
    - Asistencia facultativa.
    - Informes sanitarios.
    - Sellos de franqueo.
    - Billetes de tranvía.
    - Modelo en blanco No. 22.
    - Carromata.
    - Licencias y acuerdos tomados.
    - Eficiencia de los inspectores sanitarios auxiliares.
    - Nacimientos.
    - Vacunaciones.
    - Nóminas.

Distribución del tiempo.

Materia.	Primera semana.		Segunda semana.		Tercera semana.		Cuarta semana.	
	A. M.	P. M.	A. M.	P. M.	A. M.	P. M.	A. M.	P. M.
(1) Disposición de enfermedades peligrosas comunicables	8.00- 9.30	2.00-3.00	8.00- 9.30	2.00-3.00	8.00- 9.30	2 00-3.00	8.00- 9.30	2.00-9.00
(2) Desinfección	9.30-11.00		9.30-11.00					
(3) Vacunación								3.00-5.00
(4) Dispensario gratuito	8.00- 9.30	2.00-3.00	8.00- 9.30	2.00-3.00	8.00- 9.30	2.00-3.00	8.00- 9.30	2.00-3.00
(5) Inspección					9.30-11.00		9.30-11.00	
(6)						3.00-5.00		
(7)		3.00-5.00		3.00-5.00				
(8) Registros	11.00-12.00		11.00-12.00					
(9) Propiedades del Gobierno					11.00-12.00		11.00-12.00	
(10) Personal y disciplina	11.00-12.00		11.00-12.00					
(11) Informes (diarios semanales)					11.00-12.00		11.00-12.00	

LOS INCENDIOS COMO UNA AYUDA AL MEJORAMIENTO SANITARIO EN LOS PUEBLOS PROVINCIALES.

Los incendios destructores en las Filipinas, en los cuales quedan destruídos grandes barriadas o áreas de los pueblos provinciales, son muy comunes. Esto da una oportunidad para ensanchar calles estrechas, reconstruir drenajes defectuosos, y aplicar la ordenanza sobre construcciones de una manera económica. Se han hecho progresos importantes en este particular en Cebú, en Lucena, en Baliuag y en ciertos distritos de Manila donde han ocurrido incendios devastadores.

ABASTECIMIENTO DE AGUAS DE LA CIUDAD DE MANILA.

Un estudio más detenido del actual abastecimiento de aguas de la ciudad de Manila demuestra que la cantidad que nos pone disponible el área que recoge la lluvia y la capacidad de los tanques será enteramente inadecuada en épocas extraordinariamente secas que con toda seguridad ocurren cada cuantos años. La cuestión queda más complicada por el hecho de que hay un constante aumento en el consumo de agua en Manila originado por la prolongación del sistema a lugares donde no existía anteriormente y la instalación más general de plomería moderna. Una vez que la experiencia ha demostrado que la mortalidad en Manila aumenta un promedio de 1,800 a 2,000 al año cuando el agua que se consume se eleva del río Mariquina en Santolan, es evidente que tendremos que buscar más agua que no esté contaminada para la ciudad si se ha de proteger la salud pública. Si esto puede hacerse purificando el agua del río de Mariquina, o buscando otro sitio deshabitado, o instalando tanques adicionales, es una cuestión de ingeniería que debe recibir inmediata atención.

EXPERIMENTOS HECHOS POR LA OFICINA DE CIENCIAS SOBRE LA CONTAMINACIÓN DEL AGUA EXPUESTA A LA ATMÓSFERA.

Con el objeto de que los pequeños restaurants, carinderías, y puestos de refresco, etc., puedan facilitar un buen agua potable al público a un costo razonable, la Oficina de Sanidad ha recomendado que todos instalen teteras sencillas para esterilizar el agua. De cuando en cuando se formulan querellas siempre que se encuentra que el agua contiene amebas o bacterias patogénicas, siendo este hecho considerado como prueba de que el agua no ha sido debidamente esterilizada y protegida. Las personas afectadas han hecho algunas reclamaciones manifestando que el agua había sido debidamente hervida y debería haberse contaminado después. Con el objeto de tener datos concretos a mano se hizo una investigación por el Buró de Ciencias. Se encontró que el agua había sido bien hervida y se la había dejado expuesta a la atmósfera del local; al ser reconocida bacteriológicamente dió el siguiente resultado:

Tiempo expuesto.	Colonias por c. c.	Prueba presuntiva.	Tentativas de aislar el bacilus coli.	Amebas.	Ciliados.	Flagelados.
16 horas	8					
22½ horas	8					
41 horas	74, 183					
3 días	31, 550	Positivo				
5 días	279, 000					
7 días	172, 000					
9 días	134, 850			Positivo		
12 días				Positivo		
14 días	260, 000			Positivo		Positivo

Cuando un receptáculo parecido fué simplemente cubierto con una caja, los resultados fueron los siguientes:

Tiempo expuesto.	Colonias por c. c.	Prueba presuntiva.	Tentativas de aislar el bacilus coli.	Amebas.	Ciliados.	Flagelados.
16 horas	2					
22½ horas	70					
41 horas	149, 800					
3 días	976, 500					
5 días	290, 625					
7 días	93, 000					
9 días	18, 317					
12 días	508					
14 días	18					

Agua igualmente hervida y expuesta al polvo de una cuadra de animales dió los siguientes resultados:

Tiempo expuesto.	Colonias por c. c.	Prueba presuntiva.	Tentativas de aislar el bacilus coli.	Amebas.	Ciliados.	Flagelados.
18 horas	376					
3 días	558, 000	Positivo				Positivo
5 días	325, 200	Positivo				Positivo
10 días	74, 400	Positivo				Positivo
12 días	111, 600	Positivo				Positivo

Cuando se había cubierto sencillamente con una caja, la prueba presuntiva fué negativa y no se pudo encontrar ningún organismo al cabo de doce días. El número de las colonias fué como sigue: diez y ocho horas, 8; tres días, 3,816; cinco días, 26,737; diez días, 20,925; doce días, 6,754. De los anteriores experimentos se evidencia que hay un aumento progresivo en el número de bacterias y después una disminución. La contaminación es mucho menor en una lata cubierta. Será evidente, por lo tanto, que un reconocimiento del agua por el laboratorio por la presencia de amebas y bacterias patogénicas, de un agua que ha sido previamente hervida dentro de las cuarenta y ocho horas antes de usarse, puede servir de prueba satisfactoria ante los tribunales.

EL CAPACETE Y EL SOMBRERO DE CAMPAÑA.

El capacete va siendo sustituído rápidamente en las Islas Filipinas por un sombrero más práctico rodeado de un cinturón de ventilación. Los experimentos hechos por la Junta Militar para el Estudio de las Enfermedades Tropicales han demostrado casi conclusivamente que el capacete, por lo menos en las Filipinas, no ofrece ventajas sobre un sombrero debidamente ventilado. En resumen, la ventaja que el capacete suponíase que tenía sobre el sombrero era el de tener la cinta a un cuarto de pulgada o más de distancia de la badana, lo que permitía la libre circulación del aire por la cabeza. Como esta forma de badana puede ser insertada de la misma manera en un sombrero, no es necesario el llevar consigo el pesado, y para muchas personas desagradablemente rígido y duro capacete. Las tropas de los Estados Unidos han vuelto otra vez al uso del sombrero de campaña, que es de fieltro de alas anchas y una badana de ventilación, y hasta ahora no se han notado ningunos malos efectos.

BAÑOS Y LAVANDERÍAS PÚBLICOS.

El baño y lavandería pública de Sampaloc (distrito) ha tenido mucha popularidad y ha llenado una necesidad largo tiempo sentida. Es por lo tanto halagüeño el poder participar que la Ordenanza Municipal No. 204 de la ciudad de Manila ha votado un crédito de ₱12,000 para la construcción de más baños y lavanderías públicas, habiéndose ya otorgado un contrato para uno de tales edificios en Tondo. Las estadísticas que se llevaron en el bañadero de Sampaloc demuestran que más de 150 personas se bañaban allí antes de las 7 de la mañana. Los locales destinados para lavandería están ocupados casi siempre, demostrando así que los residentes de aquella vecindad conocen el valor de las facilidades que se han puesto a su disposición.

LAS CONEXIONES CON EL ALCANTARILLADO DE MANILA.

Todavía existe gran dificultad en poner en vigor la ordenanza que requiere a los propietarios que comuniquen sus fincas con el alcantarillado sanitario. Son frecuentes las protestas y apelaciones y roban mucho tiempo del personal de la división de ingeniería sanitaria con el objeto de presentar el caso a los juzgados de tal manera que aparten los tecnicismos legales que los abogados de la defensa presentan en obstáculo de la vigencia de dicha ordenanza. A pesar de estas dificultades, sin embargo, se continúa haciendo progreso, y el número de conexiones hechas durante los últimos seis meses demuestra un halagüeño aumento en comparación con el mismo período del año pasado. Las conexiones hechas hasta la fecha son las siguientes:

Por años fiscales—	
1909 a 1910	566
1911	1,058
1912	950
1913	503
Julio 1.° a Diciembre 31, 1913	326
Total	3,403

RECOGIDA DE LA BASURA Y DESPERDICIOS POR CONTRATO.

Durante el pasado fué costumbre de la ciudad de Manila el recoger por sí misma toda la basura, desperdicios, y barreduras de la calle y disponer de los mismos. En este año entró en funciones un contrato con una compañía particular para este trabajo, en la inteligencia de que la recogida se haría en carros automóviles durante la noche disponiéndose de la basura en una fábrica de la compañía. Poco después de haber entrado la compañía en su cometido se encontró con muchas dificultades en poder cumplir con la contrata. La compañía no podía con su propio equipo recoger toda la basura y desperdicios, y su fábrica no era debidamente adecuada para poder disponer de los mismos. Esto dió lugar a que se vertiera mucha basura y desperdicios en una playa próxima en el que se produjo un enjambre de moscas. Después de repetidas advertencias por el Buró de Sanidad sin que desapareciera este inconveniente, se advirtió el 1.° de Diciembre de 1913 a la Junta Municipal que la compañía no cumplía con el contrato y que su método de disponer de la basura y desperdicios constituía una seria amenaza para la salud de la comunidad debido a la cría de enorme número de moscas. Este peligro se acentuó con la aparición del cólera en la vecindad de la fábrica para la disposición de la basura. La Junta Municipal inmediatamente suspendió el contrato y en la actualidad la ciudad está encargada otra vez de la recogida y disposición de su propia basura, desperdicios y residuos.

UNA MODIFICACIÓN EN LA ORDENANZA SOBRE BASURAS Y DESPERDICIOS.

El 22 de Noviembre de 1913, la Junta Municipal aprobó una ordenanza que tenía por objeto la más completa separación entre la basura y los desperdicios y disponiendo receptáculos adecuados para la recogida de la basura. La ordenanza lee como sigue:

[ORDENANZA NO. 208.]

ORDENANZA QUE REFORMA EL CAPÍTULO SETENTA Y UNO DE LAS ORDENANZAS REVISADAS DE LA CIUDAD DE MANILA REFERENTE A DESPOJOS Y BASURAS.

Por cuanto, de acuerdo con las disposiciones de la Ley Número Mil ciento cincuenta de la Comisión de Filipinas, la Oficina de Sanidad de las Islas Filipinas ha redactado y transmitido a la Junta Municipal de la ciudad de Manila un proyecto de ordenanza de sanidad, debidamente aprobado por el Secretario de lo Interior, sobre la reglamentación de despojos y basuras; y

Por cuanto, la Junta Municipal de la ciudad de Manila considera conveniente dictar, sin ningún cambio, dicha ordenanza sanitaria, tal como fué presentada por la Oficina de Sanidad y aprobada por el Secretario de lo Interior: Por tanto,

La Junta Municipal de la ciudad de Manila ordena:

ARTÍCULO 1. Por la presente se reforma el capítulo setenta y uno de las Ordenanzas Revisadas de la ciudad de Manila de modo que diga lo siguiente:

"CAPÍTULO 71.—*Despojos y basuras.*

"ART. 687. *Definición de 'despojos.'*—La palabra 'despojos' siempre que se use en este título, se entenderá que quiere decir los desechos de aquellas materias animales o vegetales o substancias destinadas al alimento personal pero que han sido rechazadas para dicho uso, así como también los animales muertos que pesen menos de catorce kilos aproximadamente, los despojos y residuos de los mataderos.

"ART. 688. *Definición de 'basuras.'*—La palabra 'basuras' siempre que se emplee en este título, se entenderá que comprende todos los desperdicios de papel, cartón, tejidos, esteras, paja, madera, cáscara, latas u otros depósitos metálicos, y la porcelana y cristal rotos; así como también los materiales tirados o averiados, suciedades que se hubieren acumulado por obras de reparación o por el almacenaje o limpieza de propiedades y efectos; y los excrementos del ganado vacuno, caballar, mular y de otros animales, los lechos de paja para las caballerías, los desechos y barreduras de cuadras y demás materias de clase semejante producidas por el desarrollo de cualquier negocio o industria en la ciudad.

"ART. 689. *Recipientes, requisitos sobre los mismos.*—Se proveerá y conservará por separado un recipiente para despojos y otro para basuras. Todos los recipientes para despojos serán impermeables, con tapas bien ajustadas, y tendrán no menos de veinticinco centímetros de profundidad por veinte centímetros de diámetro ni más de ochenta y un centímetros de profundidad por cuarenta y siete centímetros de diámetro, provistos de asas y construídos de tal modo que permita su fácil manejo. Será ilegal que ninguna persona o personas pongan o conserven despojos en algún lugar o depósito que no sean recipientes adecuados de despojos provistos para ello. Ningún recipiente de despojos se llenará a más de diez centímetros aproximadamente de la boca del mismo.

"Los recipientes de basuras serán adecuados y apropiados para contenerlas con seguridad y sin escape o derrame.

"ART. 690. *Los dueños, agentes o administradores de los edificios proveerán y conservarán recipientes de despojos. Los ocupantes o inquilinos proveerán y conservarán recipientes de basuras.*—Será deber del dueño o de los dueños, del agente o administrador de todo edificio, local o lugar de negocios proveer y conservar siempre en dicho edificio, local o lugar de negocios para uso de los ocupantes del mismo, recipientes de despojos suficientes y adecuados para contener, sin derrame, todos los despojos que se puedan acumular durante cada período de veinticuatro horas, en tal edificio, local, o lugar de negocios, y será ilegal para toda persona el arrendar, subarrendar o entregar a otra para su ocupación, cualquier edificio, local, o lugar de negocios, o cualquier parte de los mismos, sin proveerlos de dichos recipientes de despojos.

"El departamento de higiene y transporte, a petición de dicho dueño, agente o administrador, facilitará, conservará y sustituirá en caso de pérdida todos los recipientes de despojos que se requieren en este artículo para uso en la ciudad de Manila, por un alquiler anual de no más de tres pesos por cada recipiente, y será ilegal que ninguna persona emplee, o que ningún dueño, agente o administrador, según se exige en el párrafo precedente, se haga con cualquier recipiente de despojos que no sea el facilitado como queda dicho por el departamento de higiene y transporte, sin obtener préviamente del Director de Sanidad un certificado de que el recipiente que se propone usar o emplear para dicho objeto, es adecuado y suficiente en cuanto a su clase, capacidad y estado: *Entendiéndose,* Que el jefe del departamento de higiene y transporte puede, a su discreción, facilitar gratuitamente dicho recipiente de despojos a personas que viven en casas que no están conectadas con el servicio del alcantarillado o del abastecimiento de aguas.

"Los ocupantes o inquilinos de todo edificio proveerán y conservarán siempre en dicho edificio, recipientes de basuras suficientes y adecuados para contener toda la basura que pueda acumularse en dicho edificio por cada veinticuatro horas.

"ART. 691. *Hora en que se han de colocar los recipientes en las aceras; grandes cantidades de basuras.*—El ocupante de todo edificio, local o lugar de negocios, tendrá el deber de hacer colocar los recipientes de despojos o de basuras en el borde exterior de la acera o en la orilla exterior de la calle si no hubiere acera, todos los días a la hora que ordene el jefe del departamento de higiene y transporte, no siendo antes de las ocho ni después de las once de la noche: *Entendiéndose, sin embargo,* Que siempre que haya cantidades grandes o extraordinarias de basuras o residuos de industrias que hayan de ser recogidos de cualquier edificio, local o lugar de negocios, el ocupante del mismo lo notificará a la persona o personas autorizadas para recoger dichas basuras o residuos de industrias, por lo menos veinticuatro horas antes de que sea necesaria la recogida a fin de poder facilitar el transporte correspondiente para ello: *Y entendiéndose además,* Que cuando haya grandes o extraordinarias cantidades, o que exceden de una carga de camión de cinco toneladas, de despojos o basuras, efectos desechados o residuos de construcción o industria, que hayan de retirarse de cualquier edificio, local o lugar de negocios, el ocupante del mismo proveerá los medios de transporte necesarios y los retirará bajo la dirección del jefe del departamento de higiene y transporte.

"ART. 692. *Recogida del contenido de los recipientes.*—Será deber del departamento de higiene y transporte o de quien estuviere autorizado al efecto, recoger diariamente el contenido de dichos recipientes en carros, camiones u otros vehículos adecuados: *Entendiéndose,* Que siempre que llegue a conocimiento del Director de Sanidad que el vaciamiento de los recipientes en el punto de la recogida por el encargado de recoger basuras constituye una molestia o perjuicio para el público será deber del departamento de higiene y transporte o de quien esté autorizado para ello, a requerimiento del Director de Sanidad, recoger diariamente los recipientes que contengan despojos, en carros, camiones u otros vehículos apropiados, reemplazando cada recipiente cargado que se recoja en esta forma con otro limpio y desinfectado según instrucciones del Director de Sanidad: *Y entendiéndose, además,* Que en cada caso en que el Director de Sanidad exija la recogida y sustitución diaria de dichos recipientes en hoteles, hospitales y casas de huéspedes y en cualquier otro caso excepcional, el ocupante de la finca pagará los gastos, pero en ningún caso se le cobrará más de lo que realmente cuesta dicho servicio.

"ART. 693. *Prohibición de tocar la basura o entrometerse con el basurero.*—Ninguna persona más que el dueño o un basurero autorizado podrá tocar o remover los despojos después que hayan sido puestos en un recipiente de despojos y colocados en un lugar accesible para su recogida, ni ninguna persona que no esté autorizada, molestará, impedirá, demorará ni de ninguna otra manera se entrometerá con ningún basurero en el ejercicio de su obligación.

"ART. 694. *Vehículos para el arrastre de las basuras.*—Las cajas o cuerpos de los vehículos para el arrastre del estiércol o despojos secos y basuras deben estar suficientemente ajustados para impedir el derrame o escape de su contenido.

"ART. 695. (*a*) *Disposición.*—Tan pronto como el carro o vehículo de basura esté cargado se debe llevar inmediatamente al lugar señalado para su descarga y de ninguna manera se permitirá que se pare en las cercanías de cualquier vivienda, escuela o lugar de reunión. De todas las materias de esta clase se debe disponer dentro de las doce horas siguientes a su recogida.

"(*b*) *Venta o remoción.*—Será ilegal que ninguna persona o personas desautorizadas vendan o quiten o hagan que se vendan o se quiten aguas sucias, verduras o frutas podridas, carne podrida o nociva o alimentos averiados por el fuego sin permiso expedido por el Director de Sanidad o su representante."

ART. 2. Esta ordenanza entrará en vigor el 1.° de Enero de 1914.

Aprobada, 22 de Noviembre de 1913.

Somos de parecer que esta ordenanza resultará un gran paso para conseguir que Manila sea una ciudad más salubre. Ella ha de reducir en gran manera la cantidad disponible de alimento para las ratas y será por lo tanto un valioso auxilio en disminuir el peligro de la peste. En segundo lugar, la basura quedará debidamente cubierta, especialmente cuando se la ponga en la acera para la recogida, y por lo tanto los olores que en el pasado han sido tan desagradables quedarán obviados en gran manera.

La antigua ordenanza disponía que cada inquilino facilitara su propio receptáculo para la basura, pero se vió que la ordenanza era impracticable en su vigencia porque los receptáculos eran robados tan rápidamente como eran comprados, y no era equitativo el obligar a los inquilinos que contínuamente incurrieran en tales pérdidas. Teniendo todos los receptáculos un mismo tamaño, y costando más barato el alquilar uno de la ciudad que el comprarlo, ninguno hallará incentivo en robar receptáculos de basura con la esperanza de venderlos a otras personas.

REGLAMENTACIÓN DE LOS SALONES DE BAILE.

La ordenanza aprobada por la Junta Municipal de la ciudad de Manila reglamentando los salones de baile entró en vigor el 1.° de Julio de 1913, con el resultado inmediato de que las mujeres que hasta entonces fueron asíduas concurrentes de los salones de baile de la ciudad se negaran a someterse a los reconocimientos exigidos por la ley y en casi cada caso trasladaran sus actividades a los pueblecitos situados alrededor de Manila. Era evidente que se burlaba el objeto de la ley. Se llevó el asunto a la Secretaría Ejecutiva y la junta provincial de la Provincia de Rizal, con el resultado de que cada uno de los municipios situados cerca de Manila promulgaran una ordenanza idéntica a la ordenanza de salones de baile de Manila y así es como todas dichas mujeres están hoy bajo inspección. Encontróse que existía una repugnante condición de salud entre ellas. Un gran número padecía de enfermedades venéreas. Éstas se hallan ahora excluídas y se han tomado disposiciones para su tratamiento.

INSPECCIÓN DE MERCADOS PÚBLICOS.

En la ciudad de Manila se destina un inspector sanitario a cada mercado para poner en vigor las ordenanzas sanitarias y los reglamentos del Buró. Dos de sus más grandes dificultades es el impedir a la gente que manosee la carne con las manos y escupan en el suelo del mercado. Para impedir el manoseo de la carne se proveyeron cajas alambradas con puertas correderas bastante grandes para ocupar dos puestos, guardándose dentro de ellas la carne. La única persona que tiene acceso a la carne es el vendedor, así es que los deseosos de comprar no tienen oportunidad de tocar la carne; además la construcción de la caja evita las moscas. Para impedir que escupan sobre el suelo, los mercados han sido provistos de muchas más escupideras, con los que esperamos que al menos tengan algún valor educativo.

En las provincias la inspección de los mercados es uno de los deberes de funcionario local de sanidad. También son inspeccionados por los oficiales de sanidad de distrito a intérvalos irregulares.

CONSTRUCCIÓN DE NUEVOS MERCADOS EN LAS PROVINCIAS.

Continúan haciéndose rápidos progresos en la construcción de nuevos edificios para mercados en las provincias. Estos proyectos son estimulados por el hecho de que los municipios pueden obtener préstamos del Gobierno Insular para dicho objeto. Los derechos procedentes de la renta de los puestos son tan provechosos que el capital queda pronto pagado; resulta de esto una constante fuente de ingresos para el municipio después, adelantándose además la causa de la higienización. Durante los últimos seis meses muchos de los edificios para mercados han sido provistos de retretes. Ello no solamente sirve para atender a las necesidades de la gente que acude a los mercados, sino que como también muchas de ellas son primitivas en sus hábitos, reciben instrucción en la disposición de excrementos humanos, lo cual esperamos que pronto ejerza importante influencia para el bien de la comunidad en que tales personas residen.

RECONOCIMIENTO VETERINARIO DE ANIMALES *ANTE-MORTEM* Y *POST-MORTEM*.

La sanidad veterinaria está bajo el cargo de la división veterinaria del Buró de Agricultura, pero como esa división no tiene representantes en la mayor parte de los municipios, se ha llegado a un acuerdo por el cual los funcionarios de la Oficina de Sanidad se encarguen de dicho trabajo en donde no haya veterinarios del Gobierno.

La naturaleza y alcance de este acuerdo queda expresada en la siguiente circular que se expidió el 27 de Diciembre de 1913:

> La cuestión de quien debe practicar los reconocimientos *ante-mortem* y *post-mortem* de los animales que son sacrificados para el consumo humano ha sido temporalmente resuelta encomendando tales deberes a los representantes de la Oficina de Sanidad en todos los municipios de las Islas Filipinas, con la excepción de la ciudad de Manila y el barrio de Sisiman en Mariveles.
>
> Es probable que muy pocos de los representantes de la Oficina de Sanidad en las Islas Filipinas hayan tenido la necesaria experiencia técnica en los reconocimientos *ante-* y *post-mortem* de animales destinados a ser sacrificados para el consumo humano, por lo que se transcriben las siguientes sencillas instrucciones del Buró de Agricultura como guía para los trabajos:
>
> "No permita que ningún animal sea sacrificado teniendo síntomas de fiebre durante la parte fresca del día, o que tenga heridas o sarnas en el

cuerpo. Los caballos con erupciones o que tengan flujo en la nariz, especialmente, no deben ser sacrificados para el consumo.

"Si después de sacrificado un animal se encuentra pus en cualquier órgano, esa parte debe ser condenada y destruída. Asimismo la carne debe ser también destruída si tiene color amarillo.

"En los cerdos, los quistes hidatídicos, *Cysticercus cellulosæ,* deben ser buscados y si se encuentran todo el cerdo debe ser condenado y destruído. Para hacer este reconocimiento se practica una incisión en los músculos de la quijada. Los quistes consisten en unos pequeños sacos que contienen un líquido acuoso que con más frecuencia se encuentra en los músculos de la quijada que en otras partes."

Lo que sigue es una nota sobre las temperaturas de los animales proporcionada por el Buró de Agricultura:

Temperatura normal.

Vacunos	38.7 a 38.8° C.	Carneros	39.7 a 40.2° C.
Carabaos	38.7 a 38.8° C.	Cabras	39.7 a 40.2° C.
Cerdos	38.2 a 40.7° C.	Caballos	38.0 a 38.4° C.

"Sobre este particular debe tenerse en cuenta el hecho de que los animales suelen experimentar una subida considerable en la temperatura después de un trabajo fatigoso o por haber estado expuestos al sol; en tales casos debe suspenderse la matanza hasta que la temperatura haya vuelto a la normal. Entre los animales menores, como los cerdos, el miedo, o la resistencia ofrecida por el animal al insertársele el termómetro puede causar un alza en la temperatura. Es discutible si es necesario tomar la temperatura de otros animales que los vacunos, carabaos y caballos."

Los oficiales de sanidad de distrito deben ver que los presidentes municipales de sanidad de los varios pueblos de su distrito se enteren bien de las disposiciones de esta circular.

BENEFICENCIA OFICIAL.

Caen bajo la jurisdicción administrativa de este Buró los hospitales generales y especiales del Gobierno, la asistencia facultativa de 12,000 empleados civiles, el implantamiento de la Ley de Alimentos y Drogas, y muchas otras cosas más o menos relacionadas con el bienestar del pueblo, incluyendo la administración de la beneficencia pública.

Miss Norton ha dicho en su librito sobre la beneficencia que "el consuelo de auxiliar a los pobres conmueve tanto como una página de novela. Es un placer que nunca languidece ni apura la alegría del alma." En cada municipio de las Islas Filipinas podemos encontrar la oportunidad de conmovernos en obras caritativas. Si el auxiliar a los pobres tiene algo de dramático, todo el mundo que desee ser romántico encontrará ocasiones para ello.

La misma autora dice que la distribución de la caridad hace que la vida sea digna de vivirse, la llena de belleza, y la hermosea desde la cuna hasta la tumba, recordándonos "que todo el anhelo, la gloria y las visiones de un porvenir más grande los encontramos aquí."

Hay situaciones muy desabridas en la vida de todo funcionario de sanidad, pero como todos ellos tienen la oportunidad de dedicarse a esta magnífica tarea por medio de la generosidad del Gobierno y por su propia voluntad, sus sinsabores quedan más que compensados con el placer que causa una obra caritativa.

Hasta que los americanos arribaron a estas Islas casi toda la obra de caridad, aún la de cuidar los leprosos, la hacían las órdenes Católico-Romanas. El Hospital de San Juan de Dios, el Hospicio de San José, el Orfelinato de Looban, el Colegio de Santa Isabel, y muchas otras meritorias instituciones eclesiásticas todavía existen prodigando su caridad a los pobres, enlazando así el antiguo régimen con el nuevo. El Hospital de San Pablo, el Reformatorio de Lolomboy y otras recientes instituciones católicas testimonian el activo interés de dicha iglesia en obras de caridad.

Las iglesias protestantes también dieron la cara para contribuir con su parte. Han establecido hospitales, clínicas gratuitas y orfelinatos.

Ni tampoco varias sociedades particulares, como la Sociedad para la Protección de la Infancia, el Instituto de Mujeres, la Sociedad Antituberculosa y otras movidas por el mismo impulso del progreso de los últimos quince años, deben quedar relegadas sin debido reconocimiento por su gestión.

La Oficina de Sanidad ha llevado este cometido independientemente en algunos casos, mientras en otros ha cooperado con las instituciones eclesiásticas y seglares, ejerciendo siempre un cuidado escrupuloso en evitar la competencia o una emulación en los esfuerzos. El campo es ancho y el propósito de todos es el mismo.

Desde los comienzos de la ocupación americana el Gobierno ha tenido un contrato con el Hospicio de San José para el cuidado de los ciegos, los dementes, los huérfanos y los ancianos. Este establecimiento fué fundado por el Sr. Francisco Gómez Henríquez en 1782. Los gastos del establecimiento ascienden a más de ₱100,000 al año, como una mitad del cual lo sufraga el Buró de Sanidad, mientras lo demás lo costean en parte los fondos del establecimiento provenientes de una manda original de ₱24,000 del Sr. Henríquez, aumentada por otras donaciones particulares, por limosnas particulares, asilados de pago, y otros recursos. En él son cuidados los ancianos cuyos días de actividad ya han pasado. De cuando en cuando procura la última morada terrena a algún infortunado americano. Entre los asilados puédense encontrar personas de casi todas las nacionalidades que han venido a las Islas Filipinas y han sido arrolladas por la desgracia. Un negro americano que vino aquí en el pleno vigor de su virilidad, hace siete años que es uno de los asilados. Allí está paralizado en su silla día trás día sin quejarse, y agradecido a las bondades de las madres españolas y del Gobierno por el cual él arriesgó la vida.

Al Hospital de San Pablo, que es uno de los principales establecimientos benéficos de Manila, con una sucursal en Iloílo, y cuya influencia se extiende de un extremo a otro del Archipiélago, la Oficina de Sanidad facilita gratuitamente medicamentos.

También ésta mantiene por contrato cierto número de huérfanas en el Orfelinato de Looban dirigido por las Hermanas de San Vicente de Paul, a cuya fundadora dedica Miss Norton el siguiente homenaje.

> Así como un fraile fundó a San Juan de Dios, una monja, que todavía vive aún, sirviendo humildemente en el mismo establecimiento, que es su contribución al país, fundó Looban.
>
> Ella una vez era propietaria de bienes valiosos en las provincias, y después de ingresar en la hermandad de la Concordia, y habiendo consagrado sus bienes a Dios, con una de esas inspiraciones propias de personas espirituales, se anticipó a una necesidad largo tiempo antes de que esta fuese sentida, y forjó en su corazón caritativo un sueño que ciertamente ella ha vivido lo bastante para verlo bien cerca de ser una triunfante realidad.

En el Colegio de Santa Isabel, una de las más antiguas instituciones católicas en Manila, son sostenidas cierto número de huérfanas por contrato. Algunas de estas huérfanas hace tiempo que han pasado el día en que cumplieron los setenta años. Han estado en el establecimiento desde pequeñas como huérfanas.

La Oficina de Sanidad contribuye con su parte al Asilo de Jaro, cerca de Iloílo. Al Hospital de San Lucas facilita medicamentos. También al Hospital de Mary J. Johnston para mujeres y niños, y al Hospital de la Misión Cristiana. Envía medicinas a los misioneros, no muchas, en verdad, pero lo suficiente para que puedan auxiliar a sus pobres más necesitados.

El Hospital de San Juan de Dios, el hospital más antiguo de Filipinas y en el que todos los alumnos de medicina de la Universidad de Santo Tomás reciben la enseñanza clínica tampoco queda a la zaga. A este establecimiento la Oficina de Sanidad contribuye con vendajes para el tratamiento de los pobres en el dispensario gratuito del Colegio Médico de San José. El Hospital de San Juan de Dios ha sido siempre, como Miss Norton dice con verdad "en su carácter un hospital más o menos moderno, presagiando en espíritu el actual establecimiento municipal o del Estado, limitado, naturalmente por su capacidad y reducido a su pobreza. Tiene un historial de caridad ilimitada, esto es, ilimitada dentro de sus limitaciones."

La Oficina de Sanidad ha sido un factor importante en ayudar los trabajos de la Sociedad Antituberculosa de las Islas Filipinas, especialmente en sus contribuciones al Sanatorio Antituberculoso de San Juan del Monte, situado en la Provincia de Rizal en las afueras de Manila. Este sanatorio está destinado en primer lugar para los casos incipientes. Tan pronto como quedan desahuciados son trasladados al Hospital de San Lázaro y cuidados por la Oficina de Sanidad hasta que les llega el último día.

La Sociedad Antituberculosa tiene en la ciudad de Manila cinco dispensarios los cuales se procuran medicinas de la Oficina de Sanidad.

El *day nursery* del "Children's Welfare Movement" recientemente organizado por el Club de Mujeres está auxiliado por la Junta Municipal de Manila y la Oficina de Sanidad. La Oficina destinó por algún tiempo una enfermera filipina en ella. De la misma fuente provienen los medicamentos y utensilios médicos.

La Oficina de Sanidad mantiene por su propia cuenta un servicio farmacéutico gratuito en el Hospital General de Filipinas y en cada una de las cinco estaciones de sanidad en Manila. En las provincias atiende al mismo por medio de un hospital contratado en Iloílo, un hospital general en Cebú, la leprosería de Culión, un hospital general en Butúan, Agusan, un hospital general para los igorrotes en Bontoc, un hospital general en Baguio, y el hospital de Bayombong, Nueva Vizcaya, establecido por la junta provincial de aquella provincia. Distribuye quinina gratis donde hace falta, y recientemente ha entrado en negociaciones con los tesoreros municipales de las Islas para la venta de este producto a un costo nominal.

La cuestión del pauperismo, debido a la suavidad del clima y la riqueza del suelo, jamás llegará a ser lo que en países más viejos, y el principal remedio contra él—para la pobreza que demanda la caridad—es una vida mejor y mayores oportunidades para el trabajo. Con el primero está íntimamente ligada la Oficina de Sanidad, con lo segundo abriga esperanzas.

La supervisión higiénica, pasando de las chozas de los pobres, ha penetrado en las cárceles y prisiones y mejorado las condiciones en ellas. Ha invadido hasta las iglesias y escuelas mejorando sus condiciones higiénicas.

No es factible dar un bosquejo aquí de todos los proyectos para el mejoramiento de los necesitados que medita o tiene puestos en práctica esta Oficina. El campo es tan ancho que no se pueden prestar auxilios más que donde son más necesarios.

Esperamos sinceramente que las legislaturas venideras considerarán las necesidades del pueblo al votar sus créditos. Que alarguen una mano a los que están en la pobreza y la miseria, que provean oportunidades para que puedan salir de la necesidad, y jamás habrá el espectáculo de esas hileras en espera del pan y de esas grandes organizaciones benéficas con sus comités y subcomités que vemos funcionar en países menos favorecidos.

ESTADÍSTICA DE POZOS ARTESIANOS.

Durante los seis meses que comprenden este corto año fiscal que comprende el informe, la división de pozos artesianos del Buró de Obras Públicas ha horadado 55 pozos buenos y 5 falsos; en las provincias ha horadado 29, lo que hace un total de 84 pozos que hacen ascender el número actual de pozos artesianos públicos en las Filipinas a 912.

Además de estos pozos terminados existen 19 pozos de profundidad y uno de surtidor bastante adelantados en las obras.

Los pozos falsos se horadaron en Albay, Albay; Dauis, Bohol; Dalaguete, Cebú; Iloílo, Iloílo; y San Carlos, Negros Occidental. El factor determinante para que un pozo resulte falso es la presencia de cloruros en cantidad excesiva o de otras substancias contaminantes.

Los lugares donde se horadaron los pozos son los siguientes:

Agusan: Butúan	1
Albay:	
Albay	1
Malinao	1
Bataan:	
Orión	1
Pilar	8
Batangas:	
Batangas	1
Bauan	4
Bohol: Loon	2
Bulacán:	
Baliuag	1
Bulacán	1
Calumpit	1
Malolos	1
Meycauayan	1
Polo	2
San Rafael	1
Cavite:	
Rosario	4
San Francisco de Malabón	2
Cebú: Dalaguete	1
Iloílo: Iloílo	4
Laguna:	
Lumbang	2
Siniloan	3
Manila: (Fábrica de hielo)	1
Mindoro:	
Concepción	2
Naujan	4
Montañosa: Tagudín	2
Negros Occidental:	
Murcia	1
San Carlos	2
Palawan: Iwahig penal colony	1
Pampanga: Mabalácat	1
Pangasinán:	
Asingan	1
Dagupan	2
Lingayén	1
Santo Tomás	1
Rizal:	
Antipolo	3
Malabón	4
Mórong	1
Navotas	1
Pililla	1
Sámar: Villareal	1
Sorsogón: Casiguran	2
Tárlac:	
Anao	2
Gerona	1
La Paz	3
Paniqui	2
Tárlac	1
Total	84

Estos pozos están distribuídos por provincias como sigue:

Agusan	1	Mindoro	6
Albay	2	Montañosa	2
Bataan	9	Negros Occidental	3
Batangas	5	Palawan	1
Bohol	2	Pampanga	1
Bulacán	8	Pangasinán	5
Cavite	6	Rizal	10
Cebú	1	Sámar	1
Iloílo	4	Sorsogón	2
Laguna	5	Tárlac	9
Manila	1	Total	84

Una circunstancia muy inquietante llegó a conocerse durante el año pasado. Pozos artesianos que daban agua prácticamente estéril se encontraron después infectados con frecuencia de amebas y daban una elevada cuenta bacterial. Parece probable que la mayor parte de estas infecciones ha venido de la contaminación de las bombas. El asunto está recibiendo ahora la atención más activa. En algunos casos ha sido posible librarlos de la infección con el permanganato de potasa o el hipocloruro de calcio haciendo después fluir abundantemente los pozos por algunos días.

APLICACIÓN DE LA LEY DE ALIMENTOS Y DROGAS.

En la práctica de la administración de la Ley de Alimentos y Drogas, el Director de Sanidad es asesorado por una Junta Inspectora de Alimentos y Drogas nombrada por el Gobernador General por la Orden Ejecutiva No. 7 del 11 de Febrero de 1911. El texto de dicha orden es el siguiente:

> Con el objeto de ayudar a llevar a cabo las disposiciones de la Ley de Alimentos y Drogas, el Director Auxiliar de Sanidad, el químico de alimentos y drogas de la Oficina de Ciencias, el tasador del puerto de la Oficina de Aduanas en Manila, y el jefe de agentes de las rentas internas de la ciudad, Oficina de Rentas Internas, son por la presente nombrados una junta que será conocida por la Junta Inspectora de Alimentos y Drogas.
>
> La junta queda autorizada para dar audiencias en asuntos relacionados con la administración de la Ley de Alimentos y Drogas; atenderá a las protestas y apelaciones de las resoluciones y acuerdos tomados según la Ley Número Mil seiscientos cincuenta y cinco; investigará el proceso de la fabricación de los alimentos y drogas y someterá un informe recomendando las bases o tipos de alimentos y drogas para su adopción bajo la Ley de Alimentos y Drogas.
>
> La junta tendrá además cuantas facultades, que cayendo debidamente dentro de los límites de la administración de la Ley de Alimentos y Drogas, les otorgue el Director de Sanidad.
>
> Los vocales de la junta que por la presente se nombra representarán a los Directores de sus respectivas Oficinas, y el Director Auxiliar de

Sanidad actuará de presidente. Las decisiones de la junta serán consultivas para el Director de Sanidad y quedarán definitivas al ser aprobadas por el Secretario de lo Interior.

La organización de la Junta se completó con la elección de Mr. George H. Tilbury, jefe de agentes de rentas internas de la ciudad de Manila, como secretario.

Celebra sesiones por las tardes de los segundos y cuartos Viernes de mes, y sesiones extraordinarias cuando la presión de los asuntos los justifica.

El año fiscal que acaba de finalizar, aunque corto a causa del cambio hecho en la legislación para conformarlo con el año natural, ha sido un período muy activo para la junta.

No ha habido una sesión en que no se oyera una protesta o se diera una audiencia general a cuantos estuvieron interesados en alguna decisión pendiente de la junta que afectara el negocio a que se dedican.

Desde el 11 de Julio de 1913, fecha de la primera sesión ordinaria de la junta durante el período que comprende este informe, se dió mano al asunto de las aguas gaseosas y bebidas embotelladas, y más tarde se dió una audiencia a los fabricantes con especial referencia a que es lo que constituye etiquetas debidas e ingredientes prohibidos.

La cuestión del uso de la sacarina y de diferentes sustancias colorantes también ha sido objeto de la atención de la junta.

En resumen, se hizo un inventario general de las operaciones afectadas por la administración de la Ley de Alimentos y Drogas haciéndose un esfüerzo para ponerlas mas en conformidad con la ley.

Se están actualmente estudiando dos asuntos importantes: la clasificación de los huevos si son frescos por inspección, el cual proceso eliminará por confiscación y destrucción todos los que estén averiados; y la restricción de la importación de leche desnatada.

En Hongkong se ha aprobado una ordenanza exigiendo que a la leche desnatada se le ponga la etiqueta "Impropia para la alimentación de criaturas menores de un año."

Esta oficina ha recomendado que se imponga una fuerte contribución sobre la venta de la leche desnatada.

La necesidad de que se tome algún acuerdo es tan grande si no lo es mayor aquí que en Hongkong, pero a causa de los varios dialectos que se hablan en las Islas Filipinas, el remedio adoptado por la colonia inglesa no sería eficaz en Filipinas.

El siguiente cuadro demuestra la naturaleza de algunos de los trabajos que han sido realizados:

Artículos.	Inspeccionados.	Admitidos.	Rechazados.	
			Adulterados falsamente marcados.	Mal marcados.
Mantequilla	2	2		
Queso	14	10	4	
Materias colorantes	7	1	6	
Pescado en lata	8	2	2	4
Esencias y extractos	6	2		4
Limonada	1	1		
Carne en lata	2	2		
Medicinas y drogas	14	1	1	12
Leche en lata	8	8		
Aceite de oliva	1	1		
Salchichas	1	1		
Sardinas	3	2		1
Té	21	13	3	5
Legumbres en lata	4			4
Macarrones	2			2
Varios	4	2		2
Total	102	50	18	34

La lista anterior no incluye las muestras de fabricación local y las de agua.

DISPENSARIOS GRATUITOS DE MANILA.

La Oficina de Sanidad mantiene un servicio de dispensarios gratuitos en el Hospital General de Filipinas, en el Hospital de San Lázaro, y en cada una de las cinco estaciones de sanidad y contribuye con medicinas al Hospital de San Lucas, al Hospital de Mary J. Johnston, al Hospital Cristiano, al Hospital de San Juan de Dios y al Hospital de San Pablo.

Los dispensarios que no están directamente bajo la Oficina siempre han cobrado algo por las medicinas cuando los enfermos pueden pagar. Hasta el 1.º de Abril del año pasado los dispensarios del Gobierno eran gratuitos en el sentido más amplio. No cobraban absolutamente nada, pero como tal sistema dió lugar a abusos se decidió cobrar una cuota nominal de todos los que pueden pagar excepto los empleados del Gobierno. Los dispensarios de la Oficina de Sanidad son muy concurridos. La farmacia situada en la oficina central y la farmacia del Hospital General de Filipinas despachan recetas expedidas a los pobres por los médicos municipales, los médicos inspectores, y por otros médicos cuando son marcados como casos indigentes. Se encontrará la estadística de estas farmacias en otra parte de este informe.

CLÍNICAS DENTALES.

Además de otras clínicas dentales gratuitas dirigidas por el Dr. Ottofy en varios lugares de la ciudad, se ha establecido una en mayor escala en el Hospital General de Filipinas bajo su supervisión. Se cobra una pequeña cuota para cubrir los gastos de material y el costo que significa la construcción de dentaduras artificiales.

Esta clínica dará oportunidad para el trabajo práctico que necesitará en el Colegio de Odontología de la Universidad de Filipinas tan pronto como se abran las clases. La clínica dental del Hospital General de Filipinas forma parte del servicio de dispensarios y está regida por las mismas reglas y reglamentos de los demás departamentos del servicio clínico.

CLÍNICA NAVAL DE CAVITE.

Los trabajos médicos gratuitos en las Islas Filipinas son grandemente auxiliados con la ayuda que prestan varias instituciones de los Estados Unidos estacionadas en diferentes partes del Archipiélago. Por ejemplo, en Cavite la Armada de los Estados Unidos mantiene una clínica gratis para los enfermos de afuera. En ella fueron tratados 4,953 casos durante el año que terminó el 30 de Junio de 1913.

NECESIDAD DE TERRENOS EDIFICABLES PARA LOS POBRES.

Esta oficina no puede menos de reiterar la gran necesidad de terraplenar los sitios bajos de Manila y de muchos otros pueblos de las Islas Filipinas que están situados en lugares anegables o que por otro motivo permanecen insalubres. Que se puede hacer progresos en este particular cuando se cuenta con el apoyo público, es una cosa factible, aún dentro de los escasos recursos disponibles, como lo demuestran ampliamente los muchos barrios sanitarios que se han construído en Manila durante los últimos cinco años. Según la experiencia de esta oficina, el traslado de las clases pobres de la población de terrenos insalubres a otros más sanos y elevados para edificaciones, resulta pronto en que la población enseguida se enorgullece de su vecindad, les incita a tener hábitos domésticos más limpios, con el resultado de que hay una gran mejoría en la salud de esa parte de la población.

HIGIENE DE LAS EMBARCACIONES.

La higiene de los vapores interinsulares ha recibido mucha atención del Servicio de Cuarentenas así como de la Oficina de Sanidad durante los últimos diez años, pero después que los vapores han sido puestos razonablemente higiénicos, a menos que se mantenga un costoso sistema de inspección, en seguida vuelven a su estado primitivo. Durante el año pasado recibimos bastante ayuda con la promulgación por el Recaudador de Aduanas de una serie de reglamentos marítimos imponiendo penalidades y multas a los que dejen de tener los vapores en buenas condiciones higiénicas. Se hizo un reconocimiento químico-biológico del agua de beber encontrado a bordo y casi sin excepción se encontró que toda ella estaba muy contaminada. La construcción de muchos de los vapores era tan defectuosa que los tanques no podían ser debidamente limpiados. Estas condiciones van ahora mejorando gradualmente con las modificaciones en la estructura de los barcos, habiendo los armadores instalado muchas veces aparatos de destilación. Esperamos que con la cooperación de la Oficina de Aduanas, la cual hoy, además de sus deberes anteriores, ejerce las funciones del anterior Buró de Navegación, y la ayuda del Servicio de Cuarentenas, se podrán hacer ahora verdaderos progresos en este particular.

LOS CEMENTERIOS DE MANILA.

Los cementerios de Manila caen bajo las disposiciones de las Ordenanzas Revisadas que anteriormente formaban parte del Código Sanitario.

Durante el período que comprende este informe se ha abierto un nuevo cementerio, el establecido por la Iglesia Católica Romana en La Loma, cerca del Cementerio del Norte, para sustituir al Cementerio de Binondo. La Iglesia Católica Romana sostiene otros cuatro cementerios en Manila, situados en Santa Ana, Pandacan, Singalong y Sampaloc (Balicbalic). La Iglesia Filipina Independiente posee un cementerio en Pandacan; la colonia china tiene su propio cementerio cerca del Cementerio del Norte, el cual es un cementerio municipal bajo la administración del departamento de higiene y transporte. El Cementerio del Norte es uno de los más hermosos sitios de la ciudad de Manila. El terreno no ocupado sirve de criadero para el cultivo de árboles y arbustos de ornato.

CEMENTERIOS PROVINCIALES.

Los cementerios provinciales están bajo las disposiciones de la Ley No. 1458 y los reglamentos para cementerios de la Oficina de Sanidad. El siguiente cuadro demuestra el número de cementerios sobre los que se ha tomado algún acuerdo por esta Oficina durante el corto año fiscal:

Clase.	Católico Romano.	Filipino Independiente.	Protestante.	Municipal.	Particular.	Total.
Nuevos cementerios aprobados	14	5	4	37	6	66
Antiguos cementerios aprobados	20	1		11	2	34
Antiguos cementerios reabiertos	12					12
Antiguos cementerios clausurados	4					4
Prolongación o ensanche aprobados				1		1
Total	50	6	4	49	8	117

LA SEPULTURA DE LAS RATAS—¿A DÓNDE VAN LAS RATAS QUE MUEREN ORDINARIAMENTE?

Las observaciones hechas desde la campaña para el exterminio de las ratas que comenzó en Junio de 1912 demuestran que existe con toda probabilidad una alta mortalidad entre las ratas que todavía no podemos explicar. Se ha calculado que en el promedio de las ciudades hay por lo menos una rata por cada habitante, pero con el objeto de estar en lo seguro supongamos que sólo hay una rata por cada dos habitantes. La vida ordinaria de las ratas se dice que es aproxidamamente cinco años. En números redondos la población de Manila y sus alrededores es de unas 300,000 almas. Sobre la base anterior debería haber una mortalidad natural de 150,000 cada quinquenio, 30,000 por año, 2,500 al mes o un promedio diario de 82 ratas. En Manila tenemos una recogida bastante completa de basuras, despojos y barreduras de la calle, y todo este material es trasladado ya a los vertederos de la ciudad o al crematorio público. No vemos en realidad cómo la ciudad de Manila puede disponer de sus basuras y despojos. Los hogares son casi desconocidos y a causa de lo caro del combustible, los fogones son de la naturaleza más primitiva y no pueden ser usados para incinerar una cosa tan grande como una rata, de modo que por lo menos la mayoría de las ratas muertas deben naturalmente parar en las latas de basuras y de despojos o en las barreduras de las calles o los patios. Los empleados del crematorio han dado cuenta varias veces que es muy raro encontrar ratas muertas durante las manipulaciones que tienen que hacer. Los empleados de los vertederos de la ciudad manifiestan lo mismo. Con el objeto de comprobar la exactitud de tales declaraciones se destinó un inspector sanitario de la Oficina de Sanidad al crematorio por un período de un mes y se hicieron frecuentes observaciones en los vertederos de la ciudad. El inspector sanitario del crematorio sólo vió una rata muerta durante el período de observación. Es muy posible, naturalmente, que cierto número de ratas mueran en sitios inaccesibles, más debido a la rápida descomposición que hay en los países tropicales, los olores que despiden atraerían en seguida la atención. Los registros de la Oficina demuestran que, comparativamente son muy raros los casos de esta clase de que se ha dado parte o se han descubierto. Como mayor prueba de que no hay considerable número de ratas que mueren en lugares inaccesibles, ha sido la experiencia de las partidas de exterminadores de ratas, que a veces llegan a 300 individuos, el encontrar muy rara vez una rata muerta que no haya muerto del veneno que se le preparó o por otra causa fácilmente explicable. Estos ratoneros limpian las casas y patios una manzana tras otra de una manera sistemática, y sin embargo es para ellos excepcional el encontrarse con una rata muerta. Durante sus operaciones encuentran con frecuencia ratas vivas. La cuestión de interés ahora es: ¿Qué pasa con las 2,500 ratas que según se presume, mueren cada mes en Manila de causas naturales? Se pensó en que podían morir en el alcantarillado sanitario, pero esto es improbable porque el nuevo alcantarillado de Manila está completamente cerrado con trampas y no es por lo tanto accesible a las ratas, y las observaciones hechas en el desagüe de las alcantarillas para la lluvia no demuestran que considerable número de ratas muertas vayan a parar a la bahía. Además, la mayoría de las alcantarillas para la lluvia son anegadas por lo menos una vez y a veces dos veces por la marea cada día, así es que difícilmente pueden ofrecer un refugio favorable para las ratas. También puede ser que las ratas muertas hayan sido comidas por otras ratas, por los gatos, o por los innumerables perros que se encuentran en la ciudad de Manila. Si son comidas por otras ratas es de suponer que los esqueletos se encontraran con frecuencia, mas no es eso lo que ocurre. Una extensa investigación nos parece indicar que no es costumbre de los perros ni los gatos el comerse ratas que han muerto de causas naturales.

De lo que precede, todo parece indicar que centenares de ratas, según presumimos, desaparecen cada mes de Manila por causas naturales, y que si solamente se conociera la verdadera naturaleza de estas, podría ser de mucho valor en la solución de la campaña exterminadora de las ratas.

EL SERVICIO DE AMBULANCIAS.

El servicio de ambulancias de la Oficina de Sanidad ha sido convertido por completo en automóvil, habiéndose la misma desprendido de las ambulancias tiradas por caballos durante el año. El equipo consiste actualmente en cuatro ambulancias eléctricas y una de gasolina de alta potencia. Las ambulancias eléctricas continúan dando resultados excelentes, especialmente a causa de su silencio en el funcionamiento, pues la transmisión de fuerza se opera por medio de ruedas dentadas en vez de la cadena ordinaria. En vista del hecho, sin embargo, que su radio de actividad sin ser recargadas de fluido es limitado y que la oficina recibe frecuentes llamadas por ambulancias de las provincias limítrofes, creímos conveniente procurarnos un motor movido a gasolina. Los fabricantes de los automóbiles Dion Bouton obtuvieron la contrata y nos proporcionaron una ambulancia capaz de marchar a una velocidad de 60 millas por hora y de trepar por cualquier declive posible para otros vehículos. Es de construcción francesa moderna y no solamente sirve para ambulancia sino que es también un pequeño hospital sobre ruedas. Su equipo incluye un lavatorio, aparatos para la esterilización del agua, desinfector de formaldehido, instrumentos quirúrgicos, dos literas, una alta y otra baja, mesa, etc. Este servicio mejorado respecto al traslado de enfermedades comunicables peligrosas a San Lázaro ha sido gran ventaja alcanzada en este ramo. Todas las ambulancias tienen su estación central en el Hospital General de Filipinas, próxima a los departamentos de electricidad y maquinaria del Buró de Ciencias, donde se puede atender con presteza a su carga y reparación.

SANEAMIENTO DE ANTIPOLO.

La cuestión del buen saneamiento de Antipolo asume grandes proporciones a causa de la peregrinación de todos los años a la iglesia de Nuestra Señora de la Paz y Buen Viaje que dura varias semanas. Llegan en algunas ocasiones a 10,000 las personas allí presentes en un solo día, y como las comodidades higiénicas de Antipolo son muy escasas, estas peregrinaciones ofrecen una excelente oportunidad para el desarrollo de enfermedades intestinales y otras varias. Esta Oficina ha estado tratando de mejorar durante años las condiciones higiénicas de dicho lugar. Pero hasta hace poco no hemos conseguido obtener nada que sea de naturaleza permanente. El municipio de Antipolo ha obtenido un préstamo del Gobierno Insular y ha aprobado una ordenanza que dispone la recogida y disposición de excrementos humanos de una manera adecuada. La ordenanza es la misma que la ordenanza modelo recomendada en el boletín titulado "La Disposición de Excrementos Humanos en las Provincias," y sus cualidades esenciales son: que los que deseen tener una cubeta higiénica instalada en su casa paguen ₱30 al año, y que los que usan los retretes públicos, de los que hay suficiente número para que sean fácilmente accesibles, ₱4 al año. Desgraciadamente, sin embargo, el efecto de esta ordenanza ha quedado grandemente debilitado por haber el concejo aprobado más tarde una enmienda disponiendo que solamente tendrá vigor durante trece semanas al año.

CAMPAÑA CONTRA LOS MOSQUITOS EN MANILA.

Los trabajos para el exterminio de los mosquitos en la ciudad de Manila que hasta ahora habían sido llevados a cabo bajo la supervisión directa de la Oficina de Sanidad, han sido enconmendados a la Junta Municipal, y están ahora bajo la supervisión directa del jefe del departamento de higiene y transporte. En vista del hecho de haberse demostrado que los mosquitos podían reducirse en Manila a un número insignificante y que esa campaña era solamente para el beneficio de los vecinos de Manila, se creyó que los gastos de la misma deberían ser del peculio del municipio y no del Gobierno Insular.

LEGISLACIÓN.

Las siguientes Leyes y decisiones públicas que afectan las cuestiones higiénicas fueron aprobadas por la Comisión de Filipinas y por la Legislatura Filipina durante el período que comprende este informe:

Ley No. 2283, la cual contiene, entre otras cosas, el siguiente párrafo:

> (*d*) Para el desarrollo y ensanche de los hospitales actualmente establecidos y previniendo la disposición de las aguas de albañal y despojos en las Provincias de Agusan, Nueva Vizcaya, Montañosa y Mora, según disponga el Secretario de lo Interior a recomendación del Director de Sanidad, treinta mil pesos.

Ley No. 2302.—Esta Ley vota la cantidad de ₱7,000 para el mantenimiento de veinte pensionados del Gobierno en el Colegio de Ciencias Veterinarias de la Universidad de Filipinas.

Ley No. 2303.—Esta Ley enmienda el artículo 6 de la Ley No. 1760 permitiendo que las juntas provinciales intervengan en la prevención de la propagación de enfermedades comunicables peligrosas entre los animales en las Islas Filipinas.

RESOLUCIONES PÚBLICAS.

Resolución de la Comisión No. 41, dividiendo el distrito sanitario compuesto de Albay y Ambos Camarines en dos distritos y disponiendo el nombramiento de un oficial de sanidad para cada uno.

Resolución de la Comisión No. 50, haciendo de Ilocos Sur e Ilocos Norte distritos aparte y disponiendo el empleo de un oficial de sanidad para cada distrito.

ORDENANZAS DE LA CIUDAD DE MANILA.

Durante el período que comprende este informe se aprobaron cuatro importantes ordenanzas que afectan la higienización. Dos de ellas votaron créditos relacionados con la salud pública:

Ordenanza No. 204.—Por disposición de esta ordenanza se votaron ₱219,700 para obras públicas y mejoras permanentes de naturaleza higiénica como sigue:

EDIFICIOS.

Para una lavandería, baño y retrete higiénicos públicos en el distrito de Tondo, doce mil pesos.

Para un mercado público en Santa Mesa (solar y edificio), diez mil pesos.

Para un mercado público en San Lázaro (traslado del mercado de Gagalañgin al norte de San Lázaro), tres mil cuatrocientos pesos.

Para una estación de comprobación del gas (edificio y equipo), seis mil pesos.

Para un pabellón para mercado de flores, trescientos pesos.

Para alteraciones en el edificio detrás de la casa ayuntamiento, para mayor acomodo del departamento de alcantarillado y aguas potables, tres mil pesos.

EQUIPO.

Para la compra o fabricación de tres mil receptáculos para la basura, quince mil pesos.

Para un camión para el sistema de cubetas, diez mil pesos.

MEJORAS HIGIÉNICAS.

Para la apertura de barrios higiénicos; mejora de los existentes y otras mejoras higiénicas en la ciudad de Manila: *A condición:* De que todos los gastos bajo este encabezamiento deben ser primeramente aprobados por el Director de Sanidad y el ingeniero de la ciudad, cien mil pesos.

Para mejoras sanitarias y obras públicas en los barrios de Dagupan, Antonio Rivera, Angustias, Lecheros y Gagalañgin, sesenta mil pesos.

Ordenanza No. 205.—Esta ordenanza vota un crédito de ₱25,500 para el departamento de higiene y transporte con destino al exterminio de las ratas y mosquitos; ₱7,500 para el exterminio de las ratas y ₱18,000 para el exterminio de los mosquitos.

Ordenanza No. 208.—Esta ordenanza enmienda el capítulo 71 de las Ordenanzas Revisadas de la ciudad de Manila que trata de la basura y despojos.

De acuerdo con esta ordenanza el departamento de higiene y transporte ha contratado cierto número de latas higiénicas para la basura para ser alquiladas a los propietarios. Dispone que será ilícito alquilar una casa que no esté provista de los adecuados receptáculos para la basura y despojos.

Ordenanza No. 210.—Esta ordenanza dispone la conservación higiénica de las fábricas de tabacos, cigarros y cigarrillos. Comprende los reglamentos expedidos por el Director de Sanidad hace algún tiempo para la conservación higiénica de fábricas de esta clase en provincias.

DISTRIBUCIÓN GEOGRÁFICA DE LAS ENFERMEDADES.

Con el objeto de hacer un estudio de la distribución geográfica de las enfermedades en las Islas Filipinas, se envió la siguiente circular a todos los oficiales de sanidad de distrito:

Se desean obtener datos más exactos de la distribución geográfica de las enfermedades en las Filipinas, especialmente cierta clase de enfermedades que no son actualmente sistemáticamente reportadas, como la frambesia, rabia, cáncer, bocio, uncinariasis, enfermedades de la piel, filariasis, etc.

Se le pide que, si tiene conocimiento o cree que cualquier enfermedad prevalece extraordinariamente en alguna localidad, que haga un estudio e investigación detenidos de la misma y envíe un informe dando todos los datos posibles sobre el particular. El *report* debe dar la prehistoria, teoría de la causa, rapidez de la propagación, número de casos, duración de la enfermedad en la localidad y cualesquiera otros datos que puedan obtenerse respecto a ella.

Se le pide que haga uno de estos informes ahora y que siga enviando otros análogos a medida que vayan presentando casos en lo sucesivo. Sabemos que los oficiales de sanidad de distrito no están provistos de los aparatos necesarios para hacer extensas exploraciones bacteriológicas o patológicas, pero pueden, sin embargo, los indicios clínicos.

Los informes obtenidos hasta aquí son tan escasos y poco satisfactorios que no podemos deducir ningunas conclusiones. El beriberi al parecer está casi todo reducido a las localidades donde el arroz pulimentado constituye la base de la alimentación. En Cebú, por ejemplo donde el maíz es la base alimenticia no existe el beriberi entre los vecinos permanentes. La Provincia de Cebú facilita además más de la mitad de los leprosos de Filipinas mientras sólo tiene como una décima parte de la población. En otras palabras, Cebú da 1 leproso por cada 200 habitantes mientras el resto del Archipiélago tiene 1 por cada 1,800 de la población.

El reconocimiento de los presos de Bilíbid demuestra gran variación en la infección filárica. Oscila entre 2 por ciento en la Pampanga hasta 35 por ciento en Leyte. Bajo el encabezamiento "Filariasis" se encontrará un cuadro dando esos por cientos.

Se continúan tomando muestras de la sangre para el laboratorio para ser reconocidas por la tifoidea demostrándose que esta enfermedad está extendida en todo el Archipiélago.

ESTADO FÍSICO DE LOS OBREROS QUE SE ENVÍAN A HAWAII.

El Dr. A. M. Saleeby, que es el médico reconocedor de la "Hawaiian Sugar Planters Association" en Manila, informa que de 10,000 obreros reconocidos por él 64 por ciento fueron pasados; el mayor número de los rechazados—esto es, el 26 por ciento—fué por beriberi. La segunda causa fueron las enfermedades del corazón. Ha participado 19 casos de dislocación del codo hacia atrás. Deduce que ello debe ser debido a manipulaciones impropias durante la niñez. El reconocimiento de los parásitos intestinales se practica ahora a la llegada a Honolulu y no en las Filipinas, y por lo tanto no tenemos disponibles datos sobre este particular por ahora.

FALTA DE CORTESÍA EN LOS ENFERMOS EN LOS HOSPITALES DEL GOBIERNO.

Habiéndose recibido numerosas quejas hablando de la falta de cortesía de parte de ciertos empleados del Gobierno Civil, Su Excelencia ha expedido la siguiente circular:

GOBIERNO DE LAS ISLAS FILIPINAS,
SECRETARÍA EJECUTIVA.

MANILA, *25 de Julio de 1913.*

ORDEN EJECUTIVA
No. 55.

Se ha llamado mi atención a que los empleados del Gobierno Civil creen que el privilegio que tienen de recibir servicios gratuitos en los hospitales del Gobierno les da derecho a ser rudos y altaneros con los médicos empleados en dichas instituciones. Es verdad que bajo la ley los funcionarios y empleados del Gobierno pueden tener servicios gratuitos en los hospitales, y el Gobierno emplea médicos cuyo deber es proporcionar dichos servicios, pero no hay nada que obligue a los médicos a permanecer en un servicio que les es desagradable pues muchos de ellos pueden hacer mucho más dinero en la práctica particular que a base de salario con el Gobierno. Se advierte a los empleados que los doctores, enfermeros y funcionarios de los hospitales del Gobierno deben ser tratados con urbanidad y respeto; que ellos están ejerciendo un gran servicio público curando enfermedades y prestando asistencia médica y quirúrgica al pueblo; que ellos remedian indecibles sufrimientos; que después que un médico ha estado aquí unos cuantos años y aprendido las exigencias de su puesto, su lugar es difícil de llenar sin sufrimientos para incontables centenares, y molestias y gastos al Gobierno.

Yo he enviado una copia de esta Orden Ejecutiva a cada uno de los médicos empleados por el Gobierno Insular pidiéndole que me facilite los nombres de cualquier funcionario o empleado que deje de reconocer la cortesía que se debe a un hombre de su posición, y todas esas quejas serán investigadas y se aplicarán los remedios administrativos que sean necesarios.

W. CAMERON FORBES, *Gobernador General.*

Se pide que todas las infracciones de esta orden que lleguen a conocimiento de cualquier médico o empleado de la Oficina de Sanidad, que los participe inmediatamente a esta oficina para ser sometidas a Su Excelencia el Gobernador General.

REORGANIZACIÓN DE LA BIBLIOTECA DE LA OFICINA CENTRAL.

La clasificación e índice de muchas publicaciones sanitarias que se reciben de las oficinas de sanidad de todas partes del mundo acaban de terminarse y las nuevas accesiones son inmediatamente colocadas en cuanto llegan. Esta biblioteca está en la oficina del Director de Sanidad y está a disposición de todo el mundo que desee utilizarlo. La literatura sobre asuntos sanitarios ha crecido a grandes pasos durante los últimos pocos años y un estudio cuidadoso de la misma será de gran ventaja en aplicar nuevos métodos en las Islas Filipinas.

EL HOSPITAL GENERAL DE FILIPINAS.

El Hospital General de Filipinas es con facilidad uno de los establecimientos más modernos del hemisferio oriental y está ahora tan completamente equipado que las facilidades médicas más extraordinarias, que hasta ahora sólo podían encontrarse en Europa o en las ciudades más grandes de los Estados Unidos, pueden encontrarse en Manila. El establecimiento llena completamente el objeto para el que fué fundado, a saber, el alivio de los dolientes y el facilitar medios adecuados para la enseñanza de los alumnos de las escuelas de medicina. Las estadísticas y registros acumulados resultan de inestimable valor en el estudio de las enfermedades en las Islas Filipinas.

El establecimiento es de valor constantemente creciente en aliviar dolencias entre los pobres y afligidos, no solo en Manila sino también entre los que residen en las provincias. Los arreglos que se han hecho, por los cuales el Gobierno costea los gastos de viaje de los pobres indigentes desde su lugar de residencia al Hospital General de Filipinas ha resultado en que muchos enfermos pobres se curen de sus dolencias y puedan ser devueltos a sus casas.

De cuando en cuando el Hospital ha sido objeto de la crítica; ésta generalmente se funda en que como la Oficina de Sanidad y el Colegio de Medicina y Cirugía tienen jurisdicción concurrente, por lo tanto la autoridad está dividida dando con ello lugar a falta de eficacia. Esta alegación es falsa, porque la ley claramente fija la responsabilidad sobre la Oficina de Sanidad, y todas las personas que prestan sus servicios en dicho establecimiento están sujetas al director del hospital que es el Director de Sanidad.

La nueva adición al edificio del dispensario del Hospital General de Filipinas está rápidamente acercándose a su término y podrá ser utilizado dentro de pocas semanas. La demanda para el tratamiento de los visitantes en el Hospital General de Filipinas ha sido tan grande que el primer edificio para dispensario resultó demasiado pequeño para poderse llevar a cabo los trabajos adecuadamente. La capacidad del dispensario se aumentará un 100 por ciento con el nuevo edificio. El segundo piso ha sido arreglado para dar alojamiento a los internos que hasta ahora han estado muy apiñados en sus habitaciones.

FACILIDAD PARA EL DOCTORADO EN EL HOSPITAL GENERAL DE FILIPINAS.

Las facilidades del Hospital General de Filipinas se han puesto a disposición de todos los médicos de las provincias que desean venir a Manila a enterarse de los últimos progresos en la medicina. Muchos médicos se han aprovechado de esta oferta y el bien que ha hecho en la diseminación de conocimientos útiles apenas puede valorarse. En el caso que haya médicos que deseen servir como internos regulares, se le facilitará la comida, alojamiento y lavada libres.

HOSPITALES PROVINCIALES.

Con el objeto de tener hospitales en los pueblos provinciales se ha hecho necesario que la Oficina de Sanidad tomara la iniciativa y facilitase casi todos los medios para la campaña.

Pero este estado de cosas va felizmente cambiándose ahora. El oficial de sanidad de distrito de la Provincia de Albay ha conseguido interesar a los funcionarios provinciales sobre este particular y esperamos que se abra un hospital allí dentro de poco. En conexión con este hospital se puede tener una escuela de enfermeros.

La Provincia de Ambos Camarines también se ha puesto en línea y el oficial de sanidad del distrito informa que las posibilidades del establecimiento de un hospital provincial allí son muy halagüeñas.

En Romblón y en Calapán hay esperanzas de obtener análogos resultados.

Este movimiento es un paso dado en debida dirección pues es muy conveniente que todas las provincias disfruten de las ventajas de un hospital y es manifiestamente imposible para la Oficina el costear y mantener tales establecimientos de sus propios presupuestos.

La actitud de algunas de las provincias hacia las mejoras sanitarias y los hospitales es muy halagüeña y esperamos que este movimiento haya de extenderse.

LA SOCIEDAD ANTITUBERCULOSA DE LAS ISLAS FILIPINAS.

La Sociedad Antituberculosa de las Islas Filipinas quedó organizada el 29 de Julio de 1910, organizándose después una sucursal en Iloílo. En la sesión del Far Eastern Association of Tropical Medicine celebrado en Manila en Marzo del mismo año el asunto de la tuberculosis recibió considerable atención. Era la opinión unánime de los miembros de la asociación que el mejor método de afrontar el problema era una organización particular. La sociedad una vez organizada quedó incorporada bajo las leyes de las Islas Filipinas y está dirigida por una junta de once miembros que son elegidos en las sesiones anuales de los miembros activos de la organización. Los directores, que son electivos, son un presidente, dos vicepresidentes, un secretario y un tesorero. Según las disposiciones de sus artículos de constitución la sociedad está autorizada para crear sucursales de la misma en todas las capitales provinciales y para nombrar un director, un secretario y un tesorero.

Al formular el plan de campaña se convino que se dedicaría la mayor parte de la atención a los trabajos educativos; esto es, en enseñar al pueblo qué es la tuberculosis y como puede prevenirse la enfermedad, el observar a la juventud del país y prepararla para una generación más fuerte en lo futuro, el enseñar a los que todavía no han contraído la enfermedad como pueden evitarla con hábitos higiénicos.

Secundario a los trabajos de educación estaba la tarea de establecer hospitales y sanatorios para los enfermos. Esta parte del plan se efectuó tomando posesión del Sanatorio Tuberculoso de San Juan del Monte situado en las afueras de Manila y el establecimiento de cinco clínicas y dispensarios en la ciudad.

Se propuso levantar fondos por medio de cuotas de los miembros, donaciones particulares, la venta de sellos de la tuberculosis, y créditos legislativos. La cuota para los miembros se fijó en ₱2 y en ₱50 al año para los socios vitalicios.

Mrs. Martín Egan fué elegida presidente y continuó en dicho puesto hasta que se marchó de las Islas. A poco de su elección visitó los Estados Unidos y consiguió del difunto J. Pierpont Morgan que hiciera una contribución anual para los trabajos de la sociedad. De esta contribución se pagaba el salario del médico nombrado para encargarse de la parte médica de los trabajos. Desgraciadamente Mr. Morgan no dejó ninguna disposición en su testamento para que se continúe la contribución después de su muerte.

Mrs. Egan ya no está en las Islas. Varios de los miembros de la Junta han dimitido por tener que marcharse a los Estados Unidos, y los miembros restantes no han celebrado ninguna sesión. El Dr. Reed, el médico al cargo de los trabajos facultativos, pronto dejará de pertenecer a la Sociedad, después de lo cual no quedará nadie para dirigir oficialmente los trabajos de la sociedad. La Legislatura votó un crédito de ₱50,000 y deben hacerse algunos arreglos para el debido uso de estos fondos. La sociedad debe ser reorganizada o sino sus trabajos deben ser encomendados a alguna oficina del Gobierno.

LA DISTRIBUCIÓN DE LA QUININA.

Calculamos que la fiebre palúdica en las Islas Filipinas es responsable de por lo menos 25,000 defunciones por año. Otras 100,000 personas enferman de esta enfermedad y quedan incapacitadas para el trabajo por diversos períodos de tiempo. Ha sido muy difícil obtener quinina en las partes más remotas del Archipiélago, especialmente a un precio que esté al alcance de todo el mundo. Con la aprobación de su Excelencia el Gobernador General, tenemos ahora arreglos terminados para poner la quinina a la venta en la oficina de todos los secretarios municipales y de los *townships* en todas las Islas Filipinas. Esta quinina se vende a 1½ centavos por cada 0.3 de gramo o tableta de 5 granos. Para los que no pueden comprar la quinina aún a este precio reducido, se han hecho arreglos para que se les facilite la quinina gratis.

La siguiente circular expone el plan que se ha puesto en operación:

GOBIERNO DE LAS ISLAS FILIPINAS,
SECRETARÍA EJECUTIVA.

CIRCULAR PROVINCIAL No. 53.

Asunto: Quinina, su venta al público.

MANILA, *4 de Diciembre de 1913.*

1. El número de defunciones en las Islas Filipinas diagnosticadas de malaria durante los últimos cuatro años ha dado un promedio de 27,071 al año.

2. La Oficina de Sanidad ha estado tratando durante años de desarrollar un plan por el que esta excesiva mortalidad pueda ser reducida. De que puede ser reducida materialmente salvándose miles de vidas cada año, manteniendo un abasto de quinina en cada municipio de las Islas, para ser vendida a los solicitantes a un precio bajo, no queda duda.

3. El Director de Sanidad urge que se mantengan tales abastos de quinina para que sean vendidos por medio de los gobiernos provinciales y municipales, y ese plan, que más adelante se explica, ha recibido la aprobación del Gobernador General con su recomendación encarecida de que se lleve a cabo por todos los interesados de una manera que contribuya eficazmente a los fines que se persiguen.

4. El plan no implica gastos para las provincias ni para los municipios por la quinina distribuída. Sólo requiere, de parte de cada provincia la creación de un pequeño crédito reembolsable con el cual se pagará por la quinina al Director de Sanidad, y que se amortizará con las ventas que se hagan al público. La cantidad necesaria para dicho crédito puede ser calculado aproximadamente, cuando decimos que cada provincia se le pedirá que matenga un abasto de por lo menos 1,000 tabletas por cada municipio y que el precio de dichas tabletas no excede de ₱13 por 1,000 según los actuales precios del mercado.

5. El plan completo puede resumirse en lo siguiente:

(*a*) La Oficina de Sanidad enviará, dentro de poco una cantidad de tabletas de quinina de 0.3 de gramo a cada tesorero provincial. Dicha cantidad está basada en el número de municipios de la provincia multiplicados por mil.

(*b*) La provincia pagará a la Oficina de Sanidad por la quinina suministrada tan pronto como la reciba, del crédito reembolsable creado para dicho objeto.

(*c*) El tesorero provincial facilitará, en cuanto reciba el abasto de quinina, a cada tesorero auxiliar (en los municipios) un abasto de 500 a 1,000 tabletas, según la magnitud y las necesidades del municipio al que el auxiliar está destinado.

(*d*) Los tesoreros auxiliares venderán a todo el que lo solicite quinina (en tabletas de 0.3 de gramo) a un precio uniforme de ₱0.015 (un centavo y medio) por tableta.

(*e*) El hecho de que la quinina se ha puesto a la venta en cada municipio en la oficina del tesorero municipal se anunciará por carteles fijados en cada edificio municipal y en cada barrio, en inglés, español y en el dialecto local. Se harán todos los esfuerzos para dar a la noticia el mayor esparcimiento posible. Se manifestará el *precio* a que se vende en cada uno de los anuncios.

(*f*) Los tesoreros provinciales pedirán a la Oficina de Sanidad ulteriores remesas de quinina, según sean necesarias, en cantidades suficientes que impidan que el abasto de reserva quede agotado.

Los tesoreros auxiliares harán asimismo pedidos al tesorero provincial para ulteriores remesas, suficientes para atender a la demanda ordinaria de modo que tengan existencia en toda época.

Se concederá un margen de tiempo suficiente en ambos casos por las probables demoras en la remisión.

(*g*) Los beneficios que se deriven de la venta de quinina volverán al crédito reembolsable de que antes se ha hablado y todas las pérdidas serán una carga contra el mismo.

6. Los trabajos de contabilidad que envuelve el plan que se ha descrito han recibido la aprobación del Auditor Insular. Seguirán más tarde instrucciones detalladas de su oficina. Con el objeto de que la contabilidad del dinero y la propiedad que significa este trabajo sean lo más simple posible, la parte que toca a los municipios, como ya se ha visto en lo que antecede, será llevada por los tesoreros municipales en su calidad de auxiliares de los tesoreros provinciales. Se espera, sin embargo, que los funcionarios y empleados municipales les prestarán toda la ayuda necesaria al objeto de que dicho trabajo no obstruya demasiado sus deberes ordinarios.

7. En vista de los fines humanitarios que se persiguen y del hecho que una demora en tomar medidas de alivio significarían indudablemente mayores sufrimientos y pérdidas de vida que de otra manera se hubieran salvado, se ha creído conveniente el proceder en este asunto sin esperar el criterio de las juntas provinciales si autorizan la creación de estos pequeños créditos reembolsables necesarios para flotar las transacciones que se piensan. El Gobernador General cree que se puede contar confidentemente en ellos así como también con la cordial cooperación de todos los interesados en hacer que los trabajos sean de beneficio eficaz para todos aquellos cuyas privaciones y sufrimientos se desea acudir y aliviar.

8. Cada trimestre, al final de Marzo, Junio, Septiembre y Diciembre de cada año, los tesoreros provinciales rendirán al Director de Sanidad, para su información administrativa, una cuenta en la siguiente forma:

PROVINCIA DE AGUSAN.

Cuenta de la quinina recibida, distribuída y existente durante el trimestre que finalizó el 31 de Marzo de 1914.

	Tabletas.
Existencia al comenzar el trimestre	3,000
Recibidos desde entonces	2,000
Total	5,000
Distribuído a los municipios según relación más abajo	3,500
Existencia a fin del trimestre	1,500
La distribución entre los municipios se hizo como sigue:	
Butúan	2,000
Cabadbaran	500
Talacogon	1,000
Total	3,500

9. La quinina será facilitada a las provincias por la Oficina de Sanidad en cajitas de lata conteniendo 500 tabletas. Los tesoreros deben remitirlas a sus auxiliares en lotes por caja. Para los fines del informe adminis-

trativo que se requiere en el párrafo 8, la distribución puede considerarse como hecha en cuanto dichos lotes por *cajas* llegan a las manos de los auxiliares para la venta.

10. Los tesoreros provinciales transmitirán los párrafos 1 al 6 de ésta a los municipios, exceptuando Cebú e Iloílo para los que no son aplicables de acuerdo con las disposiciones de la Circular Provincial No. 5.

Por el Secretario Ejecutivo.

(Fdo.) W. A. RANDALL, *Agente Especial.*

A todos los GOBERNADORES PROVINCIALES.
TESOREROS PROVINCIALES.

VACUNACIÓN ANTITÍFICA.

La gran reducción que se ha conseguido en los Ejércitos de los Estados Unidos, Alemania e Inglaterra por el uso de la vacuna antitífica, es considerada como buena prueba del empleo más generalizado de esta medida en combatir la fiebre tifoidea. Las enfermeras del Hospital General de Filipinas fueron recientemente atacadas de fiebre tifoidea. Se hizo una vacunación general entre ellas hace un año pero sin hacerlo obligatorio. Desde entonces los registros del hospital demuestran que ni una sola enfermera ha sido atacada con tifoidea de las que fueron vacunadas y que ninguno de los que no fueron vacunados fué atacado por la enfermedad.

Todas las personas particulares que pidieron la vacunación tífica han sido vacunadas en el Hospital General de Filipinas gratis, y en tanto que los presupuestos del Buró lo permitan es nuestra intención el seguir vacunando gratis contra la tifoidea a cuantas personas lo pidan.

LINFA SECA CONTRA LA VIRUELA.

El 17 de Septiembre de 1913 el Dr. Ruediger, jefe del laboratorio de sueros de la Oficina de Ciencias, envió diez tubos de linfa vacuna seca al Director de Sanidad pidiendo que la misma fuese probada a intérvalos de dos semanas o un mes y manifestando que una serie de experimentos se harían en la Oficina de Ciencias a fin de hacer comparaciones.

Se enviaron tres tubos a cada uno de los médicos inspectores de las Estaciones "J" y "L" y al Dr. Miriam E. Griffin, médico inspector de escuelas, con las siguientes instrucciones:

Se incluyen adjuntos tres tubos de linfa vacuna seca. Se le ordena que use un tubo en niños no vacunados, anotando particularmente la fecha de la vacunación y la aparición de las pústulas, y si la cicatriz indica una vacunación eficaz o no.

El segundo tubo debe usarse de la misma manera dos semanas después, y el tercer tubo dos semanas después que el segundo tubo.

La linfa seca debe mezclarse con agua esterilizada a la consistencia de la linfa ordinaria y este procedimiento debe practicarse antes de aplicar la linfa.

Deberá someterse un informe detallado a esta oficina a la conclusión de la última serie de vacunaciones con el objeto de que se puedan hacer deducciones inteligentes de los resultados obtenidos.

El inspector médico de la Estación "L" participa el 30 de Octubre respecto a estas tres series de vacunaciones de a 15 cada una con dos semanas de intérvalo, como sigue:

Tengo el honor de presentar mi informe sobre las tres series de vacunaciones practicadas en cumplimiento y de acuerdo con sus instrucciones del 19 de Septiembre de 1913 y de manifestar que en cada caso los resultados fueron positivos.

Hasta donde yo puedo determinar, las lesiones y síntomas causados por la linfa eran típicos en su naturaleza y no eran debidos a infección bacterial.

Con fecha 2 de Diciembre de 1913, el médico inspector de la Estación "J," sometió el siguiente informe:

Adjunto el informe sobre la linfa seca enviada a esta estación el 19 de Septiembre de 1913.

El primer tubo de esta linfa fué usado el 4 de Noviembre de 1913 e inspeccionado el 11 de Noviembre con resultados positivos en cada caso. Como Vd. verá en el informe, se hicieron dos inspecciones más de este grupo de casos.

El segundo tubo se preparó de la misma manera y se usó el 11 de Noviembre de 1913. Inspeccionado una semana después dió resultados negativos en cada caso.

El tercer tubo se preparó de la misma manera y se usó el 21 de Noviembre de 1913. Inspeccionados diez días después, el 1.º de Diciembre de 1913, dió un resultado de 9 positivos y 6 negativos. Vd. notará que 5 de este grupo eran de los casos reportados en el segundo grupo. Cuatro de estos revacunaciones fueron positivas y una negativa.

En cada caso positivo la vesícula estaba bien formada, redonda, contenía perfectamente su contenido, y estaba rodeado de una buena aureola. En ninguno de ellos se notó excesiva rubicundez o hinchazón.

Este informe estaba también basado en tres series de 15 cada una, habiéndose hecho dos de las pruebas el 11 de Noviembre de 1913 y la tercera el 21 de Noviembre de 1913.

De los tres tubos enviados al Dr. Griffin, se recibió el informe siguiente:

Primer tubo; utilizado el 24 de Octubre; 9 niños vacunados, 6 negativos y 2 positivos y 1 que sufrió un accidente del que no puedo dar cuenta.

Segundo tubo; utilizado el 6 de Noviembre; 14 niños vacunados, 9 positivos y 5 negativos.

Tercer tubo; utilizado el 21 de Noviembre; 13 niños vacunados, 10 positivos y 3 negativos. Total de vacunaciones, 36; positivos, 21, ó 58.33 por ciento; negativos, 14, ó 38.89 por ciento; otros, 1, ó 2.78 por ciento.

La cuestión de la eficacia de la linfa seca es una cuestión muy importante en las Filipinas, porque en este clima la linfa ordinaria glicerinizada no permanece eficaz por mas de una semana a la temperatura ordinaria.

Esto quiere decir que en muchas partes remotas de las Islas no se puede vacunar con resultados y que muchísimas de las vacunaciones que se han hecho en el pasado no han sido eficaces.

Estos informes parecen indicar que el problema está cerca de su solución. La linfa que se usó antes que tuviera dos meses dió resultados positivos en cada caso. Un tubo de linfa que se envió a la Estación J dió resultados negativos más esto debería haber sido evidentemente debido a un error en su preparación por cuanto su contenido no tenía olor, cuando el de las demás tubos se distinguía por lo contrario.

EL CÓDIGO SANITARIO PROVINCIAL.

Hace varios años se nombró un comité para preparar un bosquejo de un código sanitario provincial basado en el Código Sanitario de Manila. Los trabajos de este comité tuvieron que ser necesariamente lentos—porque sus miembros tenían deberes ordinarios a que atender, y por la dificultad de sus tareas. Cosas que son comparativamente fáciles en Manila encuentran mucha dificultad en los pueblos remotos. Uno de los más grandes obstáculos ha sido la falta de medios adecuados para la disposición de basuras y excrementos. Es muy fácil aprobar ordenanzas, más sin dinero y sin medios, es casi imposible el poder ponerlas en vigor.

El comité, después de haber sostenido correspondencia con todos los oficiales de sanidad de distrito del Archipiélago, sometió finalmente un bosquejo del código en proyecto y éste fué trasladado a otro comité para que lo estudiara especialmente con referencia a sus puntos de vista legales y su adaptabilidad a las necesidades de los municipios. Dicho código ha sido reformado y está listo actualmente para ser presentado a la Legislatura para su resolución.

No esperamos que sea perfecto, mas si podemos conseguir una uniformidad en la sanitación, reconocida por una ley especial, habremos alcanzado mucho con ello.

Las disposiciones principales del código se relacionan con la disposición de la basura, residuos y despojos, el saneamiento municipal, y la reglamentación de establecimientos en que se expenden comestibles y bebidas.

En cuanto ha sido posible, el código ha sido puesto en conformidad con el Código Sanitario de Manila.

Los oficiales de sanidad de distrito se les ha concedido más facultades que las que anteriormente poseían, con el objeto, no solamente porque son funcionarios de la Oficina de Sanidad, sino para que carguen sobre sí la responsabilidad de cuantas condiciones antihigiénicas se encontraren. Si se pudiera demostrar que hay otras personas mejores para ejercer la supervisión sanitaria de un distrito que el oficial de sanidad de distrito, el Director de Sanidad no tendrá ningún inconveniente en hacer que dicha persona sea el funcionario responsable.

ASAMBLEA DE OFICIALES DE SANIDAD DE DISTRITO.

Se convocó una asamblea de oficiales de sanidad de distrito para los comienzos del año fiscal 1914, de la cual se dará cuenta a la publicación del siguiente informe anual, mas como las negociaciones preliminares para la misma pertenecen al período que comprende este informe daremos una breve noticia de ella.

Esta asamblea ha sido convocada con el objeto de conseguir una inteligencia mejor y mas uniforme concerniente a las cuestiones mas vitales, diarias y prácticas, por medio de la discusión y cambio de ideas, y delinear un plan para el éxito de los resultados.

Los procedimientos tendrán un carácter informal de modo que cada uno de los presentes se sienta con libertad de expresar sus ideas y formular sugestiones respecto a los medios y métodos que conseguirán mayor eficacia.

El siguiente programa ha sido preparado para guía general de las deliberaciones de la conferencia:

PRIMER DÍA.

Prelusión por el Presidente	Victor G. Heiser, M. D.
La disposición de los excrementos humanos en las provincias	Vicente de Jesús, M. D.
(Abrirá la discusión José Mascuñana, M. D.)	
Beriberi	Rafael Villafranca, M. D.
Malaria—etiología, sintomatología y diagnóstico diferencial	Andrés Catanjal, M. D.
Malaria—su profilaxis y tratamiento	Florentino Ampil, M. D.
(Abrirá la discusión José Mascuñana, M. D.)	

SEGUNDO DÍA.

Necesidad de que la Oficina de Sanidad apruebe los permisos de edificaciones y plomería en las provincias. Higienización de las casas	Arlington Pond, M. D.
(Abrirá la discusión José Bantug, M. D.)	
La fiebre tifoidea y aspectos importantes de ella en relación con la higiene	Gabriel Intengan, M. D.
(Abrirá la discusión Vicente Rivera Sayo, M. D.)	
Necesidad de mejoras sanitarias generales y uniformes en las provincias. Recomendaciones	G. I. Cullen, M. D.
(Abrirá la discusión Francisco López y Lubelza, M. D.)	
La Ley No. 2156 desde el punto de vista práctico; sus ventajas y desventajas	Jacobo Fajardo, M. D.
(Abrirá la discusión Andrés Bautista, M. D.)	
Discusión de otros asuntos pertinentes.	

LA ESCUELA PRÁCTICA DE ENFERMEROS DE FILIPINAS.

Se publicó durante el año una circular de información en forma de folleto, bien ilustrado. Dicha circular da una breve historia de los comienzos de esta útil profesión en las Filipinas, los términos y condiciones bajo las cuales la escuela del Gobierno está abierta a los solicitantes, y el plan de estudios que se sigue en la misma. Puédese obtener esta circular con solo pedirla.

El siguiente proyecto de ley disponiendo el examen y registro de los enfermeros en las Islas Filipinas, ha sido preparado y recomendado por esta Oficina:

LEY QUE DISPONE EL EXAMEN Y REGISTRO DE LOS ENFERMEROS EN LAS ISLAS FILIPINAS.

Por autorización de los Estados Unidos, ordénase por la Legislatura Filipina, que:

Artículo 1. El Director de Sanidad nombrará una junta para el examen y registro de los enfermeros en las Islas Filipinas, consistente en un médico titulado y dos enfermeros de buena reputación graduados de acreditadas escuelas de enfermería. Los miembros de la junta tendrán el cargo por tres años después de su nombramiento hasta que sus sucesores hayan sido nombrados y calificados: *Entendiéndose,* Que los primeramente nombrados ocuparán el cargo por uno, dos y tres años respectivamente según se especifique en sus respectivos certificados de nombramiento por el Director de Sanidad: *Y entendiéndose, además,* Que ningún miembro de la facultad de cualquier escuela de enfermería será elegible para el nombramiento en dicha junta. Cada miembro quedará calificado al tomar y suscribir el siguiente juramento:

"Yo, ..., habiendo sido nombrado miembro de la junta examinadora y registradora de enfermeros en las Islas Filipinas, juro solemnemente que soy un graduado bien acreditado del Colegio de Enfermeros, o del Colegio de Medicina de ...., de la ciudad de ....; que ejerceré bien y fielmente todos los deberes de dicho cargo y daré cuenta fiel de todas las cantidades que vengan a mis manos como miembro de dicha junta, que guardaré verdadera fidelidad y lealtad al Gobierno de los Estados Unidos, y que tomo este juramento sin ningunas reservas mentales. Así Dios me ayude."

El juramento debe ser archivado en la oficina del Director de Sanidad. Todas las vacantes que ocurran en dicha junta serán llenadas de nuevo al mes siguiente de haber ocurrido. El Director de Sanidad puede destituir cualquier miembro por prolongada negligencia de sus deberes, incompetencia o por conducta no profesional o reprochable.

Art. 2. La junta examinadora y registradora de enfermeros dependerá de la Oficina de Sanidad en cuanto a toda acción ejecutiva que de él se requiera, pudiendo apelar al Secretario de lo Interior cuya decisión será definitiva. Se organizará inmediatamente después del nombramiento de sus miembros, y todos los años después en el aniversario de su primera organización, para elegir de entre sus miembros un presidente que será su jefe ejecutivo, y un secretario-tesorero. Tendrá y guardará un sello con el que testificarán sus actos oficiales. Los miembros de la junta recibirán compensación como sigue: El secretario-tesorero recibirá la cantidad de tres pesos por cada persona examinada y registrada por la junta, y cada uno de los otros miembros recibirá un peso y cincuenta centavos por cada persona examinada y registrada. Las cantidades que se deban a los miembros de la junta como compensación se pagarán por el Buró de Sanidad. El secretario-tesorero ejecutará una fianza de quinientos pesos, la cual será aprobada por el Tesorero de las Islas Filipinas, como garantía de que dicho tesorero depositará en la Tesorería Insular todas las cantidades recibidas por él y de que cumplirá fielmente con los deberes de su cargo. Cuando se crea conveniente nombrar una enfermera empleada en el Gobierno como miembro de la junta examinadora y registradora de enfermeros en las Islas Filipinas, la compensación que aquí se concede se le podrá pagar en adición a sus demás compensaciones.

ART. 3. El secretario-tesorero llevará un registro de todas las transacciones de la junta y un registro de todas las personas a quienes se hayan expedido certificados de registro como enfermeros bajo las disposiciones de esta Ley, manifestando el nombre, edad, sexo y oficina de cada uno, la dirección postal, el nombre de la escuela en que se graduó o en que estuvo estudiando, la fecha de su graduación o terminación de los estudios, así como el tiempo invertido en el estudio de la enfermería en otras partes, y los nombres de las localidades de tales establecimientos que hayan concedido a dicha persona títulos o certificados de cualquier carácter.

ART. 4. La junta examinadora y registradora de enfermeros de las Islas Filipinas se reunirá en la ciudad de Manila con el objeto de examinar a los candidatos que deseen ejercer de enfermeros, el segundo martes de Enero y Julio de cada año, y dará aviso de estas reuniones según lo prescriban los reglamentos de la junta. La junta expedirá dos clases de certificados de registro a las personas que hayan sido examinadas y han salido aprobadas: Una para personas que han sido tituladas en escuelas prácticas reconocidas, cuyo certificado será de "enfermero registrado;" el segundo para personas que no se han graduado en escuelas reconocidas pero han pasado un examen satisfactorio ante la junta. Este certificado será de "enfermero de segunda clase." Cada certificado irá firmado por una mayoría de los miembros de la junta. El secretario-tesorero cobrará una cuota de quince pesos de cada persona que solicite el registro como enfermero y depositará la cantidad así recaudada en la Tesorería Insular.

ART. 5. En y después del primero de Julio de mil novecientos catorce, será ilegal para cualquiera persona el ejercer como enfermero en cualquiera de sus ramos en las Islas Filipinas, hasta que haya obtenido un certificado de registro de la junta: *Entendiéndose*, Que ninguna cosa en esta Ley será aplicable a los enfermeros en el servicio público de los Estados Unidos o a personas registradas bajo las disposiciones de la Ley Número Trescientos diez.

ART. 6. Toda persona que desee comenzar o continuar el ejercicio de enfermero en las Islas Filipinas solicitará de la junta examinadora y registradora de enfermeros de las Islas Filipinas un certificado de registro de la clase que desee y tal candidato se someterá a exámenes en los ramos que se enseñan en las escuelas prácticas acreditadas, y presentarán las pruebas de su graduación o de sus estudios que exija la junta. En caso de que un solicitante no pueda pasar un examen satisfactoriamente, no se le permitirá reexaminarse hasta seis meses después. La junta puede expedirle un certificado temporal con validez hasta los siguientes exámenes ordinarios, pero ningún certificado temporal será válido por un período más largo que seis meses: *A condición*, Que los enfermeros que acompañan enfermos de otros países, pueden continuar atendiendo a dichos enfermos, y no a otros más, sin necesidad del certificado de registro.

ART. 7. La junta examinadora y registradora de enfermeros de las Islas Filipinas puede negarse a expedir el certificado a todo individuo cuya reputación y carácter sean tales que puedan acarrear deshonor o descrédito a la profesión. En caso de una negativa, deberán manifestarse al solicitante los motivos por escrito. El Secretario de lo Interior puede revocar cualquier certificado expedido por la junta habiendo pruebas de conducta no profesional, inmoral, o reprochable, después de avisar debidamente a la persona poseedora del certificado y de oírsela ante el Director de Sanidad. La decisión del Secretario de lo Interior será definitiva.

ART. 8. La junta examinadora y registradora de enfermeros tendrá autorización para redactar reglamentos determinando los "standards" que exigirá la junta y en general cuantos otros reglamentos sean necesarios para el buen cumplimiento de sus deberes, incluyendo la extensión y naturaleza de los exámenes.

ART. 9. Cualquiera persona será considerada que ejerce de enfermero dentro de la significación de esta Ley, que se dedique a cuidar enfermos y heridos bajo la dirección de un médico o independientemente por un salario, derecho, o compensación.

ART. 10. Toda persona que ejerza, se represente, o anuncie como enfermero después del primero de Julio de mil novecientos catorce, sin haber primeramente obtenido el certificado de registro que se dispone en el artículo cuatro, o de otra manera infrinja las disposiciones de esta Ley, será castigada al ser convicta con una multa de no más de doscientos pesos.

ART. 11. Esta Ley entrará en vigor a su aprobación.

VENTILACIÓN DE LOS TEATROS CINEMATÓGRAFOS.

Durante el año pasado se prestó mucha atención a la cuestión de la debida ventilación de habitaciones usadas para cinematógrafos. Una investigación que se hizo respecto a las condiciones en Manila y las provincias demuestra que la ventilación actualmente es mala y necesita remediarse urgentemente. Se está haciendo un estudio ahora de la cuestión con el objeto de encontrar un diseño para un edificio que permita la libre entrada del aire sin admitir la luz.

ALCOHOLISMO.

El alcoholismo, aunque no se encuentra con frecuencia en los filipinos, es muy frecuente entre los americanos, españoles y otros europeos en las Islas Filipinas. A comenzar el Diciembre de 1911, se dió prueba al sistema preconizado por el Dr. Alexander Lambert, de Nueva York, con los siguientes resultados. De los 22 casos tratados, todos salieron del hospital sin ningún deseo por el alcohol. De los 17 casos que hemos podido encontrar, 8 o sea al 47 por ciento continuaban en total abstención al cabo de tres meses y algunos permanecieron por cerca de dos años.

Caso No.—	Fecha de la admisión.	Resultado del tratamiento.
1	Dic. 19, 1911	Recayó después de 3 meses.
2	Dic. 29, 1911	No se ha encontrado.
3	Mar. 3, 1912	Recayó. Fué a los Estados Unidos.
4	Abr. 1, 1912	Buenos resultados.
5	Mayc 29, 1912	Do.
6	Jun. 1, 1912	Do.

Caso No.—	Fecha de la admisión.	Resultado del tratamiento.
7	Oct. 2, 1912	Recayó hace tiempo.
8	Nov. 6, 1912	Recayó hacia el 15 de Julio de 1913.
9	Dic. 15, 1912	No se ha encontrado.
10	Dic. 12, 1912	Fué a los Estados Unidos.
11	Dic. 21, 1912	Recayó después de 3½ meses.
12	Feb. 26, 1913	Buenos resultados.
13	Mar. 23, 1913	No se ha encontrado.
14	Mar. 7, 1913	Readmitido el 15 Agosto do 1914.
15	Mar. 13, 1913	Dícese que está bien.
16	Abr. 10, 1913	Recayó.
17	Abr. 13, 1913	No se ha encontrado.
18	Mayo 21, 1913	Buenos resultados.
19	Jun. 1, 1913	Dícese que está bien.
20	Jun. 16, 1913	Recayó el 22 de Julio de 1913.
21	Jun. 17, 1913	Dícese que continúa bien.
22	Jun. 21, 1913	Recayó tan pronto salió de San Lázaro.

DISENTERÍA AMÉBICA.

Los resultados obtenidos en el tratamiento de la disentería amébica por la ipecacuana y la emetina han sido muy satisfactorios y hay motivos para esperar que no esté distante el día en que la disentería amébica pueda ser tratada con la misma seguridad de éxito que la fiebre malaria o la sífilis.

La etiología de la enfermedad se ha hecho más clara por los trabajos de Mr. Ernest L. Walker, B. A. S., B. S., S. D., jefe interino del Laboratorio Biológico de la Oficina de Ciencias, cuyas conclusiones están de acuerdo con las conclusiones de varios competentes autores de otras partes del mundo cuyas investigaciones tienden a colocar el diagnóstico de esta enfermedad sobre una base científica y acumular pruebas considerables demostrando que las llamadas "amebas del agua" no son patogénicas. Nos proponemos utilizar dentro de poco estos conocimientos haciendo un reconocimiento de las deyecciones de los criados, especialmente los que se dedican a servir la comida en los hoteles, casas de huéspedes, hospitales, etc., con el objeto de descubrir casos ligeros y portadores de amebas.

Como la cuestión respecto a cuales de las amebas son patógenas, y cuales nó, todavía no está definitivamente resuelta, el curso más seguro que debemos según por lo tanto, es no ingerir ningún alimento o agua que contenga amebas, cualesquiera que estas sean.

LOS CIEGOS.

El Buró de Educación mantiene una escuela para niños defectuosos en la ciudad de Manila. Varios alumnos ciegos son cuidados en dicha institución. La Oficina de Sanidad tiene un contrato con el Hospicio de San José para el cuidado de los ciegos indigentes.

Aparte de esta clase de establecimientos muy poco se ha hecho para atender a esta clase de personas y la inmensa mayoría de las mismas están al cargo de parientes o amigos. Algunos viven de limosna y otros están dedicados a la agricultura o empresas comerciales, y unos cuantos están mantenidos por el gobierno de los municipios a que pertenecen.

El número de ciegos en las Islas Filipinas y su distribución por provincias aparece en los cuadros estadísticos al final de este informe.

MENINGITIS CEREBROESPINAL.

El descubrimiento de la existencia de la meningitis cerebroespinal en las Islas Filipinas data de los primeros días de la ocupación americana. Strong y Musgrave encontraron 12 casos típicos entre los soldados americanos del Hospital Departamental (División) durante el invierno de 1899–1900. Muchos de los enfermos murieron y el organismo fué aislado en la necropsia. Musgrave también aisló el organismo en un filipino que fué autopsiado en 1903. Whitmore y tres patólogos más también aislaron el organismo casi al mismo tiempo o un poco después. Además de estos casos se participaron otros más sospechosos por Millets y Sison. En el servicio de Dr. Eleanor J. Pond en el Mary J. Johnston Hospital, un caso fué admitido el 6 de Septiembre de 1912, y por cuanto sabemos éste es el primer caso entre los filipinos del que existe una historia completa. El Doctor Willets ha hecho el siguiente informe del mismo:

> Gregorio Pacheco, un niño de 6 años, de Malolos, Bulacán, fué admitido en el Hospital Mary J. Johnston de Manila el 6 de Septiembre de 1912 con una historia de haber estado enfermo de fiebre desde el día 2 de Septiembre. El 3 de Septiembre tuvo fuertes vómitos. El 4 de Septiembre no hubo vómitos, el enfermo estaba semi-inconsciente y tenía la cabeza un poco hacia atrás.
>
> Al ser admitido en el hospital el enfermo estaba inquieto y deliraba un poco. El opistótonos era marcado; el signo de Kernig y el trismus estaban presentes; la temperatura era de 39.1° C.; el pulso 125, y la respiración 33. El día 7 de Septiembre se puso mucho más inquieto; el cuerpo estaba rígido y la quijada estaba dura; el opistótonos, la señal de Kernig, el trismus y la fotofobia estaban presentes; si se tocaba al enfermo se producían en él estremecimientos. Se le extrajeron 15 centímetros cúbicos de fluído cerebroespinal muy turbio por punción lumbar. El enfermo mejoró rápidamente después de esta operación. Al siguiente día los músculos estaban un poco relajados y al segundo día se sentía algo mejor y tomó leche y hielo por la boca. El análisis de la sangre entonces fué el siguiente:

Hemoglobina	por ciento	95
Eritrocitos		4,400,000
Leucocitos		21,000
Polinucleares	por ciento	74
Linfocitos pequeños	id	15.5
Linfocitos grandes	id	6
Transicionales	id	1
Mononucleares grandes	id	2
Eosinofilos	id	5
Basofilos	id	1

La urinálisis hecha el 10 de Septiembre fué como sigue: Amarilla, ácida, nublada; gravedad específica, 1.018; trazas de albúmina; sin azucar; uratos amoniacales en abundancia; mocosidad, sin pus ni moldeaduras. La temperatura bajando gradualmente a la normal llegó a esta el 11 de Septiembre, el décimo día de la enfermedad y el cuarto después de la punción lumbar. El 12 de Septiembre se presentó una ozena ofensiva que persistió por dos semanas. El reconocimiento de la sangre practicado el 13 de Septiembre resultó como sigue:

Leucocitos		10,500
Polinucleares	por ciento	64
Linfocitos pequeños	id	20
Linfococitos grandes	id	5
Transicionales	id	6
Mononucleares grandes	id	2
Eusinofilos	id	3

Al día siguiente la orina demostró trazas de albúmina, por lo demás nada anormal. El 16 de Septiembre el enfermo se sentó por quince minutos y pidió pan. La luz todavía le era molesta. El reconocimiento de las deyecciones reveló la presencia de algunas cuantas huevas de ascaris, trichuris, y ankylostomas, y mucha mocosidad. El 19 de Septiembre ocurrió una elevación de la temperatura por la tarde hasta una pequeña fracción bajo 40° C. y el enfermo vomitó repetidas veces. Durante los cinco días sucesivos hubo un alza diaria en la temperatura con presencia del dolor de cabeza. La temperatura entonces volvió a la normal. El 1.° de Octubre se le presentó un sudor profuso durante casi toda la mañana y por tres o cuatro días después tenía una elevación de la temperatura cada veinticuatro horas; ésta al parecer desapareció con la administración de quinina y aspirina. El 8 de Octubre la sangre era como sigue:

Hemoglobina	por ciento	95
Eritrocitos		4,200,000
Leucocitos		13,000
Polinucleares	por ciento	74
Linfocitos pequeños	id	18.5
Linfocitos grandes	id	3.5
Transicionales	id	2
Eosinofilos	id	.5
Basofilos	id	1

La sangre era negativa para los parásitos del paludismo. Su apetito disminuyó poco después de la elevación de la temperatura el 19 de Septiembre, de aquí que el enfermo se pusiera muy flaco. Pareció tener mucha nostalgía por su casa así que el 11 de Octubre se permitió a su parte que lo llevara. Este cambio parece haber sido muy beneficioso, pues el padre dijo el 30 de Octubre que estaba ganando peso y ya podía andar.

La muestra del fluído cerebroespinal fué recibida por nosotros el 7 de Septiembre seis horas después de hecha la punción por el Dr. A. M. Saleeby, médico visitante del Hospital de Mary J. Johnston. Era muy turbia y contenía numerosas vedijas blanco-cenicientas. Los cultivos hechos del sedimento obtenido, centrifugándolo por veinte minutos demostró cierto número de diplococos de forma de biscuit, Gram-negativos, los cuales se hallaban casi todos en células polinucleares. Los polinucleares eran muy numerosos, los mononucleares raros. Los cultivos hechos en el suero sanguíneo de Loefler dieron un cultivo puro de diplococos Gram-negativos al día siguiente. Subsiguientemente se hicieron transplantes a dos tubos de cada uno de los siguientes medios de cultivo:

Medios sólidos.		Medios líquidos.
Cristales.	"Stabs."	
Sangre humana pura, agaragar ácido. Suero sanguíneo de Loefler. Agaragar, 1. Agaragar, 1. Glicerina agaragar. Patata.	Lactos litmus agar, 1. Agar glucosa.	Peptona, 1. Buillón lactosa. Caldo, 1.

En ningún caso fué el crecimiento muy lujurioso. Los mejores resultados fueron obtenidos con la sangre pura humana y agaragar ácido, mientras que los en suero sanguíneo de Loefler ocuparon el segundo puesto. El crecimiento en el agaragar ácido y alcalino y en la glicerina agaragar fué muy escaso, desarrollándose únicamente unas cuantas colonias aisladas. La patata dió resultados negativos. En los transplantes *stabs* uno de cada variedad dió un pequeño crecimiento a lo largo de la línea de la punción, y uno respectivamente de cada clase resultó negativo. No se obtuvo ningún crecimiento en los medios líquidos excepto en un tubo de peptona, y éste no fué satisfactorio pues se contaminó con estafilococos.

Las colonias aisladas eran un poco elevadas, amarillentas, húmedas y bastante irregulares en configuración a pesar de los medios de cultivo usados. Según se volvían más antiguos se ponían blancos y secos, con bordes aserrados. Los cristales preparados de estos cultivos demostraron diplococos, casi todos unidos en parejas sencillas. Las formas tetragenoides no eran poco frecuentes; había hacinamientos pero no cadenas.

Los organismos se portaron de diferentes maneras con el azul de metileno de Loefler. Los de las cultivos frescos se coloreaban bien por lo general, mientras que los de 48 horas de antiguo lo tomaban muy mal. Muchos de ellos aparecían incrustados en estos cristales de modo que perdían su forma de biscuit. Fué necesario hacer trasplantes por lo menos una vez cada cuarenta y ocho horas con el objeto de conservar los cultivos vivos.

Las pruebas de fermentación dieron resultados positivos con la glucosa y la maltosa y negativos con la sacarosa, lactosa y manito.

Había aglutinación microscópica y macroscópica presente. El 13 de Septiembre, el duodécimo día de la enfermedad, se obtuvieron resultados microscópicos positivos en una hora en diluciones de 1 a 20 y de 1 a 48 de la sangre pura del paciente. Al día siguiente se hallaba presente la aglutinación macroscópica en diluciones de 1 a 6 y de 1 a 384 del suero sanguíneo del enfermo después de una incubación de dos horas a 37° C. por dos horas y dejarlo reposar toda la noche.

El Dr. Hammack, del Colegio de Medicina y Cirugía de la Universidad de Filipinas, aisló el organismo de un filipino de 26 años de edad que le trajeron para la autopsia el 12 de Octubre.

La enfermedad, por cuanto sabemos, nunca ha asumido proporciones epidémicas hasta el 23 de Junio, cuando se presentó una epidemia de 20 casos en el campamento de ferrocarril de Laguimanoc, un barrio del municipio de Atimonan, Tayabas, continuando desde esa fecha hasta el 17 de Noviembre. Estos casos fueron participados por el Dr. Rafael Villafranca, el oficial de sanidad del distrito, y de su informe tomamos el siguiente extracto:

Esta pequeña epidemia local comenzó el 23 de Junio de 1913, y duró hasta el 17 de Noviembre del mismo año, en el que ocurrió el último caso. Hubo un caso el 23 de Junio y otro al siguiente día. Hubo un caso y una defunción el 1.° de Julio y otro caso y una defunción el 2 de Julio. El siguiente caso, que también resultó fatal, ocurrió el 7 de Julio, y hubo otro caso el 9. Antes de que estos casos fueren participados, dos niños habían fallecido bajo circustancias que ahora indican claramente la meningitis cerebroespinal.

Después del 9 de Julio no occurrieron más casos hasta el 23 del mismo mes, cuando se registró un caso no fatal. El 1.° de Agosto hubo dos casos y una defunción. Hubo tres casos en Septiembre, tres casos y dos defunciones en Octubre, y tres casos sin defunciones en Noviembre, haciendo un total de 20 casos y 8 defunciones, o una mortalidad de 40 por ciento.

El siguiente cuadro tabular demuestra las edades de los enfermos:

Edad.	Casos.	Defunciones.
De 0 a 1 año	2	2
De 1 a 10 años	1	1
De 11 a 15 años	1	0
De 16 a 20 años	10	3
De 21 a 25 años	4	2
De 26 a 30 años	2	0
Total	20	8

Se hizo una punción lumbar en tres casos y el fluído enviado a la Oficina de Ciencias para su reconocimiento, dió los siguientes resultados:

"Sr. OFICIAL DE SANIDAD DE DISTRITO,
"*Lucena, Tayabas.*

"SEÑOR: Tengo el honor de manifestar, para su conocimiento, que las muestras de fluido cerebroespinal recogidas por el Doctor Strahan de Celedonio Derecho, Martín Banot y Esteban Bacaymo, quienes trabajaban en el campamento del Ferrocarril de Manila en Laguimanoc, han sido todas halladas positivas microscópicamente del diplococo intracelular.

"Muy respetuosamente,

"VICTOR G. HEISER,
"*Director de Sanidad.*"

Como la existencia de la enfermedad había sido comprobada bacteriológicamente, era evidente que existía un foco cercano de infección o que la enfermedad había aparecido espontáneamente. El hecho de que la epidemia no se propagó a los otros barrios puede ser debido en parte al hecho de su carácter benigno y en parte a la estricta cuarentena y aislamiento que se puso en vigor en las familias en donde había ocurrido.

La meningitis cerebroespinal, según los textos, es muy frecuente en la infancia, menos frecuente en los adultos y muy rara en los ancianos. En esta epidemia hubo una mortalidad de sólo 40 por ciento, la cual es menor que la mortalidad en dichas epidemias en Alemania y Francia—pues la de Alemania es de 51.7 por ciento y la Francia de 50 por ciento. La epidemia de Boston tuvo una mortalidad de 68 por ciento.

Respecto a los síntomas puede decirse que los ataques aparecieron repentinamente. Esto, además de los síntomas nerviosos, los dolores y la rigidez del cuello, fueron los síntomas más evidentes para el diagnóstico.

El signo de Kernig también era constante. Se recordará que Netter, de Francia, fué el primero en insistir sobre el valor de este signo. Sus observaciones han sido después corroboradas por otros.

Todavía hay dudas respecto al origen de esta epidemia. El campamento del ferrocarril está situado en terreno elevado por lo menos a 20 pies sobre el nivel del mar y está a 1 milla o más de distancia de la parte habitada del barrio de Laguimanoc. Hay en el campamento unos 1,200 empleados filipinos, japoneses, americanos y otros. La primera teoría que considerar, fué la de que hubiese podido ser trasmitida por un portador de bacilos, pues se recordará que Selter encontró el organismo seis meses después que un enfermo se hallaba aparentemente sano; más aparte de los dos niños mencionados no hay indicios de casos anteriores a los cuales pueda ser trazada la epidemia. (Algunos de los obreros habían venido de Cebú, y se dijo que la enfermedad había tenido prevalencia allí, más después de una detenida investigación por el Dr. Pond, oficial de sanidad del distrito de Cebú, éste dijo que el rumor no tenía fundamento). Todos los indicios indican que hubo un portador de bacilos como punto de partida, pero de donde vino, donde adquirió la enfermedad y como la inoculó a los demás son puntos que permanecen todavía envueltos en el misterio. No hay ninguna duda que la fatiga natural a los trabajos y la vida de campamento tuvieron algo que ver con el desarrollo de la epidemia. También el tiempo tal vez. Durante aquella época el tiempo era caluroso y húmedo.

Las medidas sanitarias adoptadas fueron el aislamiento en un hospital provisional y el establecimiento de una estricta cuarentena por la policía municipal. Como medida de precaución se desinfectaron las casas donde los casos habían ocurrido y la ropa de los enfermos, y las personas sanas que vivían con ellos se les dió un lavado antiséptico de la boca y las narices. Además de estas medidas, se dieron conferencias en el dialecto local a todos los obreros explicando en cuanto era posible los peligros de la enfermedad y los medios de evitarla. Se les dijo que mientras los médicos no estaban seguros de como se propagaba la infección, las probabilidades eran las siguientes:

Los meningococos llegan eventualmente a las meninges por la corriente de la sangre, no por los linfáticos. La entrada exacta de infección no se conoce bien. El organismo se alberga detrás de la garganta y la nariz, y probablemente penetra por alguna erosión bucal, tonsilar, o intestinal de las membranas mucosas. La presencia ocasional de complicaciones pulmonares sugiere también la posibilidad de la infección por inhalación. La vitalidad de los organismos les permite que se distribuyan por medio de los esputos secos, cultivos de los cuales han sido obtenidos del aire de las habitaciones en las cuales se ha estado escupiendo. Los alimentos se contaminan prontamente, y se ha podido comprobar que hasta terceras personas han actuado de intermediarias. Probablemente es más infecciosa durante los primeras dos semenas.

El Dr. Villafranca trató a los enfermos sintomáticamente, aliviando los síntomas molestos de la enfermedad y sosteniendo la nutrición. La baja mortalidad dice bien de su tratamiento, aunque las manifestaciones de la enfermedad hayan sido más bien benignas.

EL CÓLERA.

El cólera hizo otra vez su aparición en Manila el 24 de Agosto después de una ausencia de más de dos años. El primer caso ocurrió en un filipino que trabajaba como carpintero en uno de los hoteles de la localidad y vivía en la calle de San Sebastían No. 1060. Se dice que casi siempre comía en casa. Una cuidadosa investigación hecha en el hotel demostró que ningún huésped había llegado al establecimiento de Hongkong ni de otro país donde estuviera presente el cólera varios días antes. La víctima salió del establecimiento en que estaba ocupado la tarde del 23 de Agosto con buena salud aparentemente. Así como al medio día del día siguiente sintió dolores violentos en la parte abdominal que por la siesta aumentaron en intensidad. Además tuvo fuertes calambres en los músculos de las piernas y antebrazos. No tenía diarrea. Se llamó a un médico quien dió parte por la noche que el caso presentaba muchos de los síntomas clínicos del cólera, y ordenó que el enfermo fuera trasladado a San Lázaro. A su llegada al hospital, a eso de las 10 de la noche, estaba en estado moribundo y falleció pocos minutos después. En la autopsia, que tuvo lugar el 25 de Agosto, se encontraron en los intestinos lesiones típicas del cólera seca. Los intestinos inferiores contenían gran cantidad de excrementos duros y formados. Se halló en el íleo un fluido como agua de arroz, unos cultivos del cual, preparados de acuerdo con el procedimiento recomendado por la Conferencia Internacional de Higiene Pública, dieron lugar al aislamiento de verdaderos vibriones del cólera.

Vino bajo observación otro caso de cólera el día 25 de Agosto. Fué un filipino que estaba empleado como cocinero por una familia inglesa en Caloocan, que es un suburbio de Manila, y a varias millas de donde ocurrió el primer caso. No se pudo encontrar ninguna relación entre los dos. Esta víctima contó que había estado padeciendo de diarrea, con calambres en los músculos de las extremidades cerca de una semana, por lo que su amo, creyendo que holgazaneaba, lo despidió. Al siguiente día (25 de Agosto) en que esto ocurrió, se le encontró en una casa del distrito de San Lázaro y fué prontamente trasladado al hospital colérico de San Lázaro. Los registros de aquel establecimiento demuestran que tenía deyecciones parecidas al agua de arroz, calambres en los músculos de las piernas, supresión de la orina, voz apagada, temperatura subnormal, y otros síntomas bien conocidos del cólera. Los cultivos hechos de sus deyecciones, reconocidos de la misma manera que en el caso anterior, dieron resultados positivos del cólera.

El siguiente caso llegó a ser observado el 13 de Septiembre en la persona de un carpintero que trabajaba y estaba domiciliado en el distrito de Malate. Esta localidad está a una distancia de varias millas de donde ocurrieron los dos casos anteriores y no se pudo encontrar que tuviese ninguna relación con ellos. Durante la semana que terminó el 20 de Septiembre hubo 3 casos; en la que terminó el 27 de Septiembre, 5 casos; y en la que terminó el 4 de Octubre, 8 casos.

Los primeros 8 casos ocurrieron en partes muy apartadas una de otra en la ciudad y la investigación más cuidadosa no pudo comprobar ninguna relación entre ellos. Después se pudieron comprobar sin embargo varios casos de infección por contacto. Una circunstancia muy notoria respecto a este chispazo fué el hecho de que se encontraran los vibriones del cólera en las deyecciones de los contactos en muchos casos, como se podrá ver por el siguiente cuadro:

Número del caso.	Contactos reconocidos.	Tenían vibriones.	Tenían verdaderos vibriones del cólera.	Por ciento de personas reconocidas que tenían vibriones del cólera.	Clase de retrete.
1	20	1	1	5	Inodoro.
2	17	2	0	0	Cubeta.
3	0	0	0	0	
4	7	1	0	0	Retrete público.
5	4	0	0	0	Inodoro con tanque séptico.
6	2	0	0	0	Cubeta.
7	6	0	0	0	Retrete público.
8	5	0	0	0	Inodoro.
9	14	0	0	0	Id.
10	6	0	0	0	Retrete público.
11	9	0	0	0	Pozo seco.
12	17	0	0	0	Cubeta.
13	5	0	0	0	Retrete público.
14	10	0	0	0	Id.
15	10	0	0	0	
16	9	0	0	0	Inodoro.
17	14	1	1	7. 14	Retrete público.
18	12	1	1	8. 33	
19	51	1	1	1. 96	
20	29	0	0	0	Pozo seco.
21	5	0	0	0	Retrete público.
22	4	0	0	0	Id.
23	19	0	0	0	Inodoro.
24	4	0	0	0	Retrete público.
25	6	0	0	0	Cubeta y pozo séptico.
26	11	4	4	36. 36	Pozo seco.
27	13	0	0	0	Id.
28	70	4	4	5. 7	Inodoro.
29	7	0	0	0	Retrete público.
30	15	0	0	0	Id.
31	14	0	0	0	Pozo seco.
32	14	0	0	0	Id.
33	14	0	0	0	Retrete público.
34	40	4	1	2. 5	Inodoro.
35	4	1	0	0	Pozo seco.
36	40	0	0	0	Cubeta y pozo seco.
37	4	2	0	0	Inodoro.
38	2	1	0	0	Id.
39	19	0	0	0	
40	14	1	1	7. 14	
41	20	0	0	0	Retrete público.
42	13	1	1	7. 7	Id.
43	15	0	0	0	Inodoro.
44	0	0	0	0	
45	9	1	0	0	Pozo seco.
46	3	0	0	0	Retrete público.
47	10	0	0	0	
48	27	1	1	3. 7	Inodoro.
49	19	0	0	0	Retrete público.
50	0	0	0	0	
51	8	0	0	0	Cubeta.
52	8	0	0	0	Id.
53	19	0	0	0	Retrete público.
54	0	0	0	0	
55	19	0	0	0	Inodoro.
56	2	2	2	100	Retrete público.
57	13	0	0	0	Id.
58	14	3	3	21. 43	
59	17	0	0	0	Pozo seco.
60	10	1	1	10	Id.
61	13	3	3	23	Retrete público.
62	7	0	0	0	Id.
63	17	4	4	23. 53	2 inodoros; 2 pozos secos.
64	8	0	0	0	Retrete público.
65	0	0	0	0	
66	0	0	0	0	Id.
67	0	0	0	0	Id.
68	7	0	0	0	Pozo seco.
69	6	0	0	0	Retrete público.
70	20	0	0	0	Id.
71	4	0	0	0	
72	3	0	0	0	Pozo seco.

Una inspección de los locales donde ocurrieron los casos de cólera demostró que al parecer había más o menos relación directa entre la disposición de los excrementos y los amagos de la enfermedad. La tabla anterior demuestra que en el 80 por ciento de los casos la enfermedad se presentó en casas que no tenían plomería moderna. Esta tabla demuestra además que de 72 grupos de contactos reconocidos, 40 de ellos eran portadores de vibriones de alguna clase y 29 verdaderos portadores del cólera.

Estos resultados demuestran de una manera eficaz la necesidad de facilidades adecuadas de laboratorio si se ha de emprender inteligentemente una campaña contra el cólera.

Más tarde la enfermedad hizo aparición en Orani, Orión y Pilar, en la Provincia de Bataán; en Bocaue, Meycauayan, Bulacán, Baliuag y Malolos, en la Provincia de Bulacán; en Bacoor, Cavite, Rosario y Santa Cruz, en la Provincia de Cavite; en Ángeles, Guagua, Macabebe, México, San Fernando, Santa Ana y Sexmoan, Provincia de Pampanga; en Asingan, Dagupan, Lingayén, Santa Bárbara y Urdaneta, Provincia de Pangasinán; en Caloocan, Fuerte McKinley, Laspiñas, Navotas, Parañaque, Pasay, Pasig, Pateros, San Felipe Neri, San Pedro Macati y Taguig, en la Provincia de Rizal. Durante el mes de Octubre el mal apareció repentinamente en Cebú y Opón, en la Provincia de Cebú con un total de 3 casos y 2 defunciones. La enfermedad aquí como en otros lugares anteriores, parecía esporádica y no podía ser trazada a ningún origen. Banga, Calivo, Lezo y New Washington, en la Provincia de Cápiz, se infectaron durante el mes de Noviembre, sin poderse averiguar el origen de la infección.

Los diagnósticos fueron corroborados microscópicamente en cada pueblo en que la enfermedad se presentó.

Hasta ahora siempre ha sido posible extirpar el mal en comparativamente pocos días en cualquier pueblo en que se presentara si se tomaban rápidas medidas con los primeros casos. La cooperación recibida del público en esta ocasión participando en seguida los casos ha sido de mucha ayuda, y creemos que esta ayuda ha sido obtenida por las medidas menos molestas que se han tomado. Por ejemplo, no se impusieron medidas de cuarentena excepto la de las casas en que ocurrían los casos de cólera cuando no era posible trasladar estos al hospital. Creemos que la buena voluntad ganada con este procedimiento ha sobrepujado al riesgo que se corrió en no imponer medidas cuarentenarias más extensivas. Las poblaciones en donde el mal se presentó no pusieron prácticamente ningún inconveniente a los métodos que se emplearon. Hubo sin embargo una notable excepción a lo anterior, y fué en la Provincia de Cápiz. Parecía imposible obtener la cooperación y auxilio del público allí, y los esfuerzos de los funcionarios de sanidad se vieron impedidos con la propagación de rumores de que ellos envenenaban los pozos y que los agentes del Gobierno no tenían interés en el bienestar del pueblo.

Según los mejores informes que podemos obtener, no hubo cólera en cualquier parte de las Filipinas desde el Octubre de 1911, y una detenida investigación no ha podido comprobarnos que la enfermedad haya sido introducida de cualquier país extranjero. Ha sido la práctica de la Oficina de Cuarentenas durante los dos últimos años el reconocer las deyecciones de todos los pasajeros de cubierta y de todos los demás pasajeros procedentes de países extranjeros infectados del cólera en todos los vapores que arriban, y por más de un año antes de la aparición del cólera en Manila no se encontraron pasajeros que tuvieran los vibriones del cólera. La aparición de la enfermedad, con frecuencia simultáneamente, en localidades muy distanciadas, y el fracaso en averiguar el origen de la infección después de una detenida investigación, parece dar pruebas de que la enfermedad no ha sido introducida de países extranjeros en primer lugar. Después que la enfermedad se ha establecido en un pueblo, puede a veces trazarse la infección a otro caso anterior, más por regla general estos ocurren en barrios muy distanciados entre sí, que no tienen un abastecimiento de aguas común y en que no puede establecerse ningún contacto, ya por personas o insectos, con los casos anteriores.

La historia de esta epidemia, con excepción de Cápiz, demuestra que la desinfección y otras medidas sanitarias fueron prontamente aplicadas con eficacia, pues era raro que ocurriera más de un solo caso en una misma casa y hasta en un mismo distrito, a menos que todas ocurrieran al mismo tiempo.

De lo que antecede es aparente que el origen de la presente infección colérica no puede ser trazado definitivamente. Hay pruebas bastantes bajo el punto de vista epidemiológico de que los portadores de bacilos pueden estar siempre presentes en las Filipinas y que de que los organismos pasan por cierto ciclo durante ciertas fases del cual quizá no puede ser reconocido por los actuales procedimientos de laboratorio, y sin embargo dichos organismos en otra fase de su ciclo encuentran el medio de llegar a los intestinos de una persona susceptible y producir el cólera. Su mayor o menor virulencia tal vez tenga también un papel importante en la intensidad de la epidemia. Sí las medidas sanitarias empleadas impiden al organismo que pase por los intestinos de varias personas, la virulencia permanece baja y la enfermedad pronto desaparece.

Hasta el 31 de Diciembre de 1913 hubo en Manila 161 casos de los cuales fallecieron 110. En las provincias hubo 165 casos con 107 defunciones. Tal vez sea interesante observar que en la epidemia de 1902 durante un período igual hubo 3,033 casos y 2,348 defunciones en Manila y 12,121 casos y 8,923 defunciones en provincias.

MEDIDAS EMPLEADAS PARA COMBATIR EL CÓLERA.

Toda la campaña se dedicó a la inmediata desinfección de las deyecciones y vómitos de los enfermos y los portadores de bacilos. Brevemente, esto se consiguió con el aislamiento de los enfermos y portadores de bacilos en hospitales de coléricos y otros establecimientos cuando ello no era posible, y haciendo que sus deyecciones pasaran directamente a receptáculos que contenían soluciones desinfectantes. En las comunidades donde aparecía el cólera se tomaron prontas medidas para la disposición adecuada de los excrementos de toda la población. A causa de la costumbre muy extendida entre las masas de comer con los dedos de un plato común y a causa de los hábitos del pueblo, se hicieron encarecidas recomendaciones para que todos los residentes en un distrito infectado se lavaran las manos con bicloruro al 1 por 1,000 u otra solución desinfectante antes de tomar alimentos. Se tomaron precauciones con el agua y artículos alimenticios. Se hizo también una campaña de educación y se tomaron otras medidas como en epidemias anteriores, una mención más detallada de las cuales se encontrará en los informes anuales anteriores y en las publicaciones de esta Oficina.

En la Oficina de Ciencias se están haciendo considerables trabajos actualmente con el objeto de averiguar si las moscas, cucarachas y otros insectos pueden ser responsables del traslado de deyecciones a los alimentos, y ya se han acumulado bastantes pruebas para demostrar que con mucha probabilidad la infección se lleva a cabo algunas veces de este modo. Creemos que las medidas anteriormente descritas con respecto a la disposición de excrementos humanos impidieron probablemente que el agua se infectara, por cuyo motivo no hubo considerable número de casos en esta epidemia atribuible a este origen.

TRATAMIENTO.

Se dependía casi siempre de la trasfusión intravenosa de solución salina. Se encontrarán más informes detallados, en particular con respecto a los nuevos métodos, en el informe del jefe de la división del Hospital de San Lázaro que se publica en otra parte de este informe.

RECOMENDACIONES.

La experiencia en esta epidemia ha demostrado forzosamente otra vez la necesidad de más estudios de laboratorio con respecto a esta enfermedad. Las causas de la simultánea aparición del mal en localidades muy distanciadas, una vez bien comprendida, puede ser de mucho auxilio en combatir el cólera.

FILARIASIS.

Se ha participado la existencia de la filariasis en las Islas Filipinas de tiempo en tiempo por varios autores. Hace varios años la Comisión del Ejército para el Estudio de las Enfermedades Tropicales que Existen en las Islas Filipinas publicó un informe sobre esta enfermedad. Durante los últimos pocos años todos los presos confinados en Bilíbid han sido detenidamente examinados o reconocidos de la filaria, y un estudio de la estadística demuestra que la enfermedad al parecer no se propaga después que los condenados ingresan en Bilíbid; en otras palabras, por lo que sabemos, que no se propaga en dicho establecimiento.

El reconocimiento de los presos de Bilíbid por la filaria antes de Agosto de 1913, demuestra los siguientes resultados:

Informe de la filaria en la Prisión de Bilíbid.

Provincia.	Número total de reconocidos.	Positivos.	Negativos.	Por ciento de positivos.
Albay	96	26	70	27.08
Ambos Camarines	133	32	101	24.06
Antique	26	4	22	15.38
Bataan	26	1	25	3.54
Batangas	77	4	73	5.19
Bohol	29	8	21	27.58
Bulacán	133	18	115	13.54
Cagayán	63	--------	63	--------
Cápiz	149	38	111	25.50
Cavite	57	2	55	3.50
Cebú	108	25	173	12.63
Iloílo	235	25	210	10.03
Ilocos Norte	70	4	66	5.71
Ilocos Sur	51	--------	51	--------
Isabela	27	--------	27	--------
Laguna	70	1	69	1.42
La Unión	36	1	35	2.78
Leyte	196	69	127	35.20
Manila	118	20	98	16.94
Masbate	11	1	10	9.09
Mindoro	8	2	6	25.00
Misamis	78	21	57	26.92
Mindanao	11	1	10	9.09
Montañosa	6	--------	6	--------
Nueva Écija	91	5	86	5.49
Nueva Vizcaya	7	--------	7	--------
Negros Occidental	47	2	45	4.25
Negros Oriental	59	9	50	15.25
Palawan	10	--------	10	--------
Pampanga	94	2	92	2.12
Pangasinán	211	2	209	.94
Rizal	65	8	57	12.30
Romblón	16	2	14	12.50
Sámar	37	2	35	5.40
Sorsogón	69	22	47	31.88
Surigao	64	6	58	9.37
Tárlac	43	5	38	11.62
Tayabas	44	7	37	15.90
Estados Unidos	25	--------	25	--------
China	256	28	228	10.93
Total	3,042	403	2,639	13.24

GONORREA OFTÁLMICA.

El Dr. Reinhard Rembe, jefe del departamento de ojos, oídos, nariz y garganta del Hospital General de Filipinas, participó en Junio de 1913 un aumento alarmante en casos de oftalmia gonorreica. Una investigación demostró que muchos de ellos fueron probablemente contraídos indirectamente de las mujeres que frecuentan con regularidad los salones públicos de baile en Manila. Desde el 1.° de Mayo al 1.° de Septiembre hubo 25 casos que fueron tratados en el Hospital General de Filipinas. De este número 2 quedaron completamente ciegos y otros 2 ciegos de un ojo solamente. Desde el 1.° de Julio comenzó a regir la "Ordenanza de Salones de Baile" que exige el reconocimiento facultativo de todas las mujeres que danzan en los salones públicos de baile. Esto resultó en que muchos casos de afección venérea vinieran a ser tratados consiguiéndose una reducción en el número de enfermedades venéreas. Además se comenzó una activa campaña de educación. El Dr. Rembe preparó un artículo periodístico que fué publicado por la prensa de Manila. Se tomaron fotografías de las víctimas, de los cuales se hicieron proyecciones para linterna que se exhibieron en los teatros cinematógrafos de la ciudad con las debidas palabras explicatorias. Poco después hubo un rápido descenso en el número de casos, habiendo sido tratados desde el 1.° de Septiembre hasta el 31 de Diciembre solamente once casos en el Hospital General de Filipinas.

DEMENTES.

En la parte estadística de este informe se encontrará un cuadro demostrando que existen más de 3,500 personas clasificadas como dementes en las Islas Filipinas. Esta lista incluye los epilépticos, los dementes y los idiotas.

Se creyó que la Legislatura haría algo para establecer un hospital general de dementes, pero debido a la falta de fondos no se tomará ningún acuerdo durante la sesión actual. Existe ahora un hospital con acomodaciones para 600. Los otros 3,000 que deberían ser debidamente cuidados en establecimientos debidamente equipados tienen necesariamente que permanecer siendo una carga pública o particular.

PARÁSITOS INTESTINALES ENCONTRADOS EN LOS PRESOS DE LA PRISIÓN DE BILIBID.

Todos los presos antes de ser admitidos en Bilíbid, se les pone en cuarentena y se les da un tratamiento contra los parásitos intestinales hasta que den dos resultados microscópicos negativos. Habiéndose hecho hace poco un reconocimiento de los presos, se obtuvieron los siguientes resultados:

Reconocimiento de las deyecciones en el Hospital de Bilíbid desde el 1.° de Julio al 31 de Diciembre de 1913.

Brigadas.	Amebas.	Ascaris.	Balantidium coli.	Ankylostomas.	Mónadas.	Oxyuris.	Strongiloides.	Tenia.	Trichuris.
No. 1, presidio y cárcel	8	22		19	16				56
No. 2, presidio	1	18		9	3				28
No. 2, cárcel	1	3		3	3				6
No. 3, presidio	25	80		42	13	3	2		80
No. 4-A, presidio	5	7		6					16
No. 4-B, presidio	14	55		24	6	1	1		38
No. 4-A, cárcel	4	15		20	14	1			44
No. 4-B, cárcel		5		10	11				24
No. 5, presidio	30	87		42	21	5	1		70
No. 5-A, cárcel	1	18		3					26
No. 5-B, cárcel	1	19		30	15				50
No. 6-A, cárcel		17		9	4				25
No. 6-B, cárcel		5		6	1	1			19
No. 8, presidio	17	76		48	27	17			100
No. 8, cárcel	2	53	1	41	16	6	2		68
No. 9, presidio	14	73		33	22			1	101
No. 9-A, cárcel	7	16		10	6		1		23
No. 9-B, cárcel	13	45	1	25	18	1	2	1	55
Bartolinas del presidio y la cárcel		4	1	3	2		1		11
Sala de tuberculosos	1	13		9	4	1	1		29
Total	144	631	3	392	202	36	11	2	869

Número total de presos reconocidos	2,416
Total de positivos por parásitos intestinales	2,290
Por ciento de positivos por ciento	94

La tabla anterior demuestra que o el tratamiento que se daba al ingreso en la prisión no era eficaz, o que los presos se volvían a infectar después de entrar en el establecimiento. Es difícil comprender cómo podían haber sido reinfectados porque solo se les da agua hervida, no se les facilita vegetales crudos ni tampoco trabajan en jardines en donde pudieran haber adquirido el contagio del suelo contaminado. La disposición de los excrementos en Bilíbid es por medio de inodoros modernos.

LEPRA.

La segregación de los leprosos con el objeto de disminuirlos y finalmente extirpar el mal de las Islas Filipinas comenzó en 1906, pero hasta 1911 no hubo nada que pudiera decirse que se había hecho una verdadera recogida de leprosos en todas las Islas. Durante el año fiscal que finalizó el 30 de Junio de 1913 fueron admitidos a la leprosería de Culión 1,071 leprosos quienes, por sus propias manifestaciones, habían tenido la enfermedad por más de cinco años. El reconocimiento de muchos de ellos demostró que con toda probabilidad la mayor parte lo había estado padeciendo por más tiempo. De lo que precede se deduce que todavía debe haber muchos centros de infección en las Islas Filipinas, y que es aventurado esperar una rápida reducción en casos nuevos por ahora. Los reconocimientos hechos de las chinches cogidas en las camas y las casas habitadas por leprosos han sido participados como sigue por el Dr. John A. Johnston, de la Oficina de Ciencias:

> Se encontraron bacilos que no se decoloraban con los ácidos en los intestinos de 1 chinche de los 15 que fueron reconocidos separadamente. Los demás chinches (300) fueron pulverizados en lotes de 50 en solución salina esterilizada, se centrifugaron y se tomaron muestras. De cada uno de estos lotes se reconocieron unas 100 muestras. Encontramos bacilos que no se decoloraban con los ácidos 4 veces, un total de 5 veces para todo el número de chinches.

No hay ninguna prueba, sin embargo, para demostrar que haya conexión alguna entre estas chinches y la propagación de la enfermedad.

Una ojeada a lo que se ha escrito hasta la fecha sobre ello, no nos da ninguna esperanza de que pueda conseguirse la supresión de la lepra excepto por el aislamiento y la segregación. Esta política impone muchas veces grandes vejámenes tanto a los leprosos como a sus parientes y deudos más inmediatos, pero creemos que la medida está ampliamente justificada con objeto de que centenares de otras personas sean salvadas anualmente de contraer la enfermedad. Durante el año natural que finalizó el 31 de Diciembre de 1913, hubo 795 casos trasladados a la leprosería de Culión. Con pocas excepciones, todos los casos conocidos están ahora bajo recaudo, pero hay muchísima probabilidad de que existan casos incipientes que todavía no han sido reconocidos y es en el aislamiento rápido de estos en que la solución satisfactoria del asunto probablemente ha de depender.

CURAS ESPONTÁNEAS DE LA LEPRA.

Hay mucha razón para creer que muchas personas contraen la lepra y llegan a curarse sin ningún tratamiento y sin, tal vez, haberse percatado que tenían la enfermedad. No es poco frecuente el caso de encontrar personas con áreas anestesiadas o en quienes grandes regiones del cutis han sufrido cambios fibrosos, o con indicios de anteriores infiltraciones en los oídos y en las alas de la nariz. Una persona fué dada de alta hace unos cuantos años de la leprosería de Culión quien, cuando fué admitida tenía síntomas clínicos marcados y se le había encontrado el bacilo de la lepra. No tomó ningún tratamiento, pero mejoró gradualmente y en menos de dos años volvióse negativo tanto clínicamente como microscópicamente. Entonces se marchó a España y ya no le hemos visto desde entonces.

EL TRATAMIENTO DE LA LEPRA EN LOS HOSPITALES DE LA OFICINA DE SANIDAD.

En el último informe anual se hizo mención del hecho que las inyecciones hipodérmicas de la fórmula de aceite de chaulmugra usada por el Dr. Mercado, médico de casa del Hospital de San Lázaro, habían sido aparentemente responsables de que dos personas se curaran de la lepra y permanecieran libres de ella por espacio de dos años. Durante el mes de Julio dos leprosos más que habían permanecido negativos por más de dos años fueron dados de alta del Hospital de San Lázaro. Estos casos fueron tratados por el Dr. Mercado con la siguiente fórmula:

Aceite de chaulmugra	cc	60
Aceite alcanforado	cc	60
Resorcina	gramos	4

Mézclese y disuélvase con ayuda del calor en un baño-maría, y fíltrese.

Se administraron dosis de un centímetro cúbico a intérvalos de una semana, aumentándolas gradualmente hasta el punto de tolerancia. En uno de los casos se llegó a una dosis de 20 centímetros cúbicos, mientras que en el otro no se creyó prudente aumentar la dosis a más de 5 centímetros cúbicos a causa de la palpitación cardíaca que dosis más grandes parecían producirle.

Se ha seguido el mismo tratamiento en el hospital de Culión y también se han participado de allí resultados favorables.

La historia clínica de los casos curados que hasta aquí se han participado era muy incompleta. Con el objeto de comprobar la eficacia del tratamiento de una manera más satisfactoria se colocaron 19 casos de lepra bajo el tratamiento el 21 de Febrero de 1912, y dentro de poco se publicará en una revista médica un artículo dando cuenta de los resultados del mismo. Deberá recordarse que no reclamamos nada absolutamente nuevo en dicho tratamiento ni tampoco que los resultados justifiquen hasta ahora que se haya hallado un específico.

LA LEPRA EN LA PRISIÓN DE BILÍBID.

De tiempo en tiempo se han registrado casos de lepra en la Prisión de Bilíbid. Será por lo tanto de interés el anotar las fechas en que los presos ingresaron en Bilíbid y las fechas en que se reconoció la lepra por primera vez en ellos. Todos ellos no fueron más que tres. El primero ingresó en la prisión el 15 de Junio de 1903, y no demostró ningunos síntomas de la lepra hasta el Enero de 1911. Durante ese intérvalo, sin embargo, había sido destinado desde Junio de 1907 a Julio de 1907 a las obras públicas donde bien pudiera haber adquirido la enfermedad. También fué uno de los penados de la colonia agrícola de Iwahig desde el Febrero de 1909 hasta el Enero de 1911, en donde es posible que hubiese estado expuesto a la infección de la lepra. El segundo caso fué admitido en Abril de 1904 y se le envió a las obras públicas del Campamento Overton, en Mindanao, el Abril de 1905. En Septiembre de 1905 se escapó pero fué recapturado dos semanas después. En Julio de 1906 fué devuelto a Bilíbid. En Septiembre de 1908 fué destinado a las obras públicas de la isla del Corregidor, del que volvió a Bilíbid en Mayo de 1910. En Julio de 1911 se le hizo un diagnóstico definitivo de la lepra y fué trasladado al hospital de leprosos. El tercer caso fué admitido en Marzo de 1911 y siempre estuvo en la Prisión de Bilíbid; dió indicios inequívocos de la enfermedad el 5 de Noviembre de 1913 por lo que fué trasladado en aquella misma fecha al Hospital de San Lázaro. De lo que antecede es aparente que los dos primeros casos pudieron haber contraído la infección fuera de Bilíbid y que el último caso ocurrió dentro del período de incubación generalmente reconocido para la enfermedad.

BREVE HISTORIA DE LA LEPRA EN LAS FILIPINAS.

Con el objeto de satisfacer las solicitudes que con frecuencia vienen recibiéndose en esta Oficina pidiendo datos referentes a la lepra en Filipinas, el Médico Inspector Dr. Newberne ha recopilado los siguientes datos:

A la luz de los conocimientos modernos no vemos el motivo por qué se haya tenido que recurrir a especulaciones teóricas para explicar la presencia de la lepra en un pueblo isleño que por siglos ha estado manteniendo relaciones comerciales y hasta personales con el Japón y el continente asiático en donde la enfermedad ha sido conocida desde tiempo inmemorial. Empero, entre los primeros informes oficiales que se hicieron de la lepra después de la ocupación americana, se encuentra lo siguiente:

> La lepra fué introducida aquí en 1633. El emperador del Japón envió un barco con 150 leprosos como un presente para que los cuidaran los sacerdotes católicos. Se permitió a estos leprosos que desembarcaran, y como no se adoptaron ningunos métodos prácticos para la supresión de la enfermedad e impedir su propagación, fué ganando terreno hasta que hoy, según los cálculos de los Padres Franciscanos, hay no menos que 30,000 leprosos en el Archipiélago, la mayor parte en Visayas. Bajo el régimen español, el Orden de los Franciscanos tenía a su cargo la obra de beneficencia con los leprosos. Se levantaron varios hospitales y asilos, el mayor de los cuales, el Hospital de San Lázaro, está situado en Manila y tiene una capacidad de 400 pacientes. Cuando en 1900 se hizo una inspección domiciliaria se encontraron más de 100 leprosos ocultos entre las casas, los que fueron enviados al Hospital de San Lázaro. Muchos otros escaparon a las cercanías de la ciudad. La necesidad de segregar y aislar los leprosos en una

de las islas ha sido reconocida y urgida por la junta de sanidad. Tan pronto como las circunstancias lo permitieron, las autoridades nombraron una comisión para elegir una isla o islas convenientes para dicho objeto, presentar planos y valoraciones de los edificios, y formular los necesarios reglamentos. Esta comisión se halla actualmente con las manos sobre la obra.

Durante toda la época del régimen español en estas Islas no parece haber habido una norma oficial conprensiva para la conservación y el fomento de la salud pública. En ningún otro caso tuvo esto mejor ejemplo que en el cuidado de los leprosos. La división de responsabilidades en tales asuntos que regía durante la dominación española entre el Estado y la Iglesia, no podía conducir a los mejores resultados, y no parece que hubiera habido en cualquier ocasión unanimidad de criterio de parte de los funcionarios del estado y las autoridades eclesiásticas.

Los establecimientos leprosos eran administrados por la iglesia con motivos de caridad, con el objeto de aislar y cuidar cada enfermo más que para efectuar una política para el exterminio de la enfermedad.

La primera institución realmente leprosa que hubo en Manila la establecieron los Franciscanos como un departamento de su hospital general en el año 1632 y estuvo situada en el distrito de la Concepción frente al terreno actualmente ocupado por el Hospital Departamental del Ejército. Los leprosos de Manila fueron alojados en este hospital, con excepción de los pocos años entre 1662 y 1681, cuando por temor a una amenaza de invasión de chinos piratas, el hospital tal fué trasladado a Quiapo y colocado bajo la administración del párroco local, hasta que luego se creyó más conveniente el alejar el hospital permanentemente de la Concepción a un punto más distante de las defensas de la costa, a causa del peligro que acarrearía un bombardeo de la ciudad, como lo vieron mal de su grado las autoridades españolas durante la invasión inglesa de 1762.

A la expulsión de los jesuitas de las Islas por Carlos III en 1762, el Gobierno Español tomó posesión de la actual hacienda de San Lázaro, que en esta época (1784) fué entregado a los Franciscanos para una leprosería, en la inteligencia que una parte del mismo había de utilizarse como hospital, mientras la mayor parte de la hacienda era para ser arrendada. Las rentas provenientes de tales recaudaciones iban destinadas al mantenimiento de los leprosos.

En conformidad con esto se estableció el 1784 el primer hospital de leprosos. La estructura era de mampostería, y costó 27,540 pesos, 2 reales y 2 granos, y estaba situada donde hoy está el hospital de enfermedades peligrosas comunicables y se la tituló Hospital de San Lázaro. De tiempo en tiempo se fueron haciendo pequeñas adiciones y reparaciones de los perjuicios causados por los terremotos y temporales.

El Padre Félix Huertas se hizo cargo del establecimiento en 1859 y se dice que hizo en él grandes mejoras. En su época los edificios fueron ensanchados, los extensos muros que hay en la actualidad se construyeron por valor de 30,000 pesos, y se levantó un edificio para la guardia civil (probablemente el hoy laboratorio de sueros). El Padre Félix Huertas parece haber sido un hombre de extraordinaria habilidad administrativa, y era especialmente notable en su maña para hacerse de dinero. Se dice que recaudó e invirtió en el establecimiento durante los veintiún años de su administración, entre 1859 y 1880, como 330,000 pesos, una cantidad bien respetable para aquella época.

Desde 1632 hasta el traslado del Hospital de San Lázaro a las autoridades militares de los Estados Unidos, allá por el 4 de Septiembre de 1898, los trabajos para el alivio de los leprosos estuvieron constantemente al cargo de los Franciscanos, con excepción de los pocos años en que se encargó de ellos el cura de Quiapo.

A la llegada de los buques americanos en Manila, los miembros de la Orden Franciscana que estaban al cargo de los leprosos vivían en el primero de los dos actuales edificios de mampostería mientras que el de más atrás estaba destinado a los leprosos. El 1.° de Agosto de 1898, las circunstancias anómalas del país llegaron a tal extremo que los frailes españoles se sintieron inseguros en vivir tan lejos, así es que el 12 de dicho mes dejaron el hospital y se refugiaron en la ciudad murada, notificando a los americanos al siguiente día, aunque continuaron administrando los asuntos del establecimiento hasta el 4 de Septiembre en que fueron formalmente reemplazados por los autoridades militares de los Estados Unidos.

A los comienzos de la ocupación americana los establecimientos leprosos dignos de mención eran el Hospital de San Lázaro en Manila, un hospital en Cebú, y otro en Nueva Cáceres, Ambos Camarines, con una capacidad total, calculada por las autoridades españolas en 400. Cuantas otras disposiciones se hicieron para el cuidado de los leprosos, además de los hospitales mencionados, eran de pequeña importancia, el resultado de una iniciativa local animada por el real decreto de 1830, y consistía en muchos casos, en una aglomeración de chozas en las afueras de alguna gran población, con derecho de visitar ciertos lugares en los mercados y las calles cada día con el objeto de pedir limosna.

Estas colonias leprosas eran expedientes para proveer a sus necesidades corporales y servía el objeto de alejar del constante contacto con las masas una clase de personas afectadas de una enfermedad repugnante, mas debido a la ausencia o incumplimiento de las debidas reglas sanitarias, las fuentes de propagación de la lepra en las Islas Filipinas no disminuyeron materialmente con las restricciones puestas sobre ella.

Tales medidas eran de naturaleza caritativa y estética, dicho sea en debida alabanza de los desinteresados trabajadores de aquella época por el bien que hicieron, pero los efectos sobre la salud pública fueron puramente incidentales.

El Hospital de San Lázaro se encontró prácticamente abandonado a la entrada de las tropas americanas en Manila. Se acudió inmediatamente a los pocos que quedaban de los asilados en el establecimiento, pues la mayor parte de ellos lo habían dejado y quedaron absorbidos en el resto de la comunidad. Los enfermos que se marcharon fueron devueltos por la policía si no volvían voluntariamente. Se nombró un administrador por el preboste mariscal general para la administración inmediata del hospital y de la hacienda de la cual derivaba su principal sostén.

El 12 de Julio de 1899, la Orden Franciscana pidió que se restituyera el hospital a su administración. La solicitud fué endosada a las autoridades militares quienes hicieron que se practicara una minuciosa investigación del estado legal del establecimiento, resultado de la cual es el siguiente resumen redactado por un juez auxiliar de la Corte Suprema:

> El hospital de leprosos es un establecimiento público. Tiene todos los caracteres de un establecimiento tal. Las personas enfermas particularmente interesadas son admitidas en él; está mantenido de los recursos que se obtienen de terrenos públicos distraídos para este único objeto por real orden; los frailes Franciscanos descalzos que lo han administrado no eran más que agentes del Gobierno quien tenía libertad para cambiar estos agentes; está sujeto a la inspección gubernamental, y aunque sea cierto, como alega dicha orden, que sus frailes han hecho grande bien pidiendo y distribuyendo limosnas para el beneficio de los dolientes moradores del hospital, esta circunstancia, aunque embellece la naturaleza humana y significa la virtud, no puede, y en ninguna manera puede afectar la naturaleza gubernamental del establecimiento.
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> En consonancia con sus fines y con su naturaleza, se recomienda que el hospital de leprosos continúe bajo la supervisión del Gobierno.

Una investigación ulterior ha descubierto en los archivos públicos una carta del provincial de la referida orden fechada el 23 de Mayo de 1898, pidiendo que el Gobierno Español asumiera la administración del hospital y sus pertenencias, disponiendo la forma de administrarla que más conviniera a sus intereses, pues dicha administración, según decía, la habían aceptado únicamente por amor a los desgraciados leprosos, y en vista de que ellos siempre habían procedido con estricta justicia en todos los actos de su administración para ser sólo remunerados con toda clase de molestias y disgustos con los lugartenientes, de quienes esperaban recibir muchos más después, pedía, con el objeto de evitar tales choques, que el Gobierno General le relevara de la espinosa administración de la propiedad del susodicho hospital.

De esta manera se pudo establecer la relación del Gobierno Americano con la hacienda del Hospital de San Lázaro.

Las vicisitudes del proyecto de establecimiento de una leprosería pueden verse mejor con los siguientes recortes de antiguos informes sobre el particular. Tan temprano como en 1902 el informe de la Oficina de Sanidad (entonces Junta de Sanidad) bajo el encabezamiento "La leprosería en proyecto" decía lo siguiente:

> Existen en las Filipinas tres hospitales para leprosos; situados en Manila, Palestina, Nueva Cáceres y Cebú respectivamente. Durante el año pasado se tomaron los primeros pasos para tomar un censo de los leprosos de las Islas. Este censo está hoy casi terminado para muchas de las provincias, y sus resultados dan lugar a la conclusión de que los cálculos de las personas que hasta ahora habían expresado su opinión de que existían 30,000 leprosos en las Islas está muy lejos de una aproximación a la verdad. Creemos que el número total no excederá de 10,000 y probablemente resulte ser mucho menor.
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> Las autoridades civiles y militares hace tiempo que han apreciado la conveniencia de que se establezca una colonia en la que cuantos estén en las primeras etapas de la enfermedad puedan tener sus viviendas, cultivar el suelo, y en general, vivir una vida campesina, en vez de estar prácticamente encarceladas y obligadas a pasar sus días con otros compañeros desgraciados en los últimos estados de dicha horrible enfermedad. Se han hecho esfuerzos por el gobierno militar para encontrar una isla adecuada para el establecimiento de una leprosería y una comisión militar ha informado favorablemente sobre la isla de Cagayán de Joló después de un reconocimiento superficial de la misma. Como no pudieron dar informes satisfactorios de abastecimiento de agua potable de la isla y como se dudó seriamente de la exactitud de su aserto que solamente había unos 200 ó 300 habitantes en ella, se nombró un comité consistente en el Comisionado de Salud Pública, el ingeniero de sanidad y el Secretario de lo Interior para volver a reconocer la isla, y si no se la encontraba satisfactoria para buscar otra más favorable.
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> Este comité informó en contra de la isla de Cagayán de Joló debido a la falta completa de un abastecimiento de agua potable favorablemente situado, la ausencia de un puerto, y la presencia en la isla de unos 3,000 moros cuya remoción habría de ser dificultosa y cara, y recomendaron la isla de Culión en las Calamianes, a causa de su clima saludable, riqueza del suelo, extensos pastos, abundante abastecimiento de aguas, buenos puertos, y escasa población. Los actuales habitantes son tan pocos y tienen tan pocos bienes que su remoción, si se considera necesaria, podrá efectuarse con poca dificultad y escaso costo.
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> Se incluyó en la Ley No. 389 un crédito de $50,000 con destino a la erección de una bodega en la bahía de Halsey, la construcción de un camino al lugar elegido para colonia, la erección de una casa para el

superintendente, hospital, y 100 viviendas separadas para los leprosos, el hospital y las viviendas se construirán de caña y nipa, los cuales se producen en abundancia en la isla de Culión. Desgraciadamente, la epidemia del cólera impidió que se emprendieran estos trabajos y el crédito venció al final del año fiscal. Se votó otro crédito en Octubre y esperamos que la colonia llegará a ser establecida y que los asilados de San Lázaro, y los lazaretos de Palestina y Cebú podrán ser trasladados a ella durante la próxima estación de secas.

El comité nombrado para elegir una localidad para la colonia, después de inspeccionar todos los lugares que se le recomendaron, sometió el siguiente informe:

MANILA, I. F., *1.° de Enero de 1902.*

A la COMISIÓN DE LOS ESTADOS UNIDOS EN FILIPINAS.

CABALLEROS: El 10 de Diciembre el comité compuesto del Comisionado de Salud Pública, el ingeniero de sanidad de la Junta de Sanidad de las Islas Filipinas y el Secretario de lo Interior embarcaron en el vapor de los Estados Unidos *General Álava* para investigar las condiciones de la isla de Cagayán de Joló para una colonia de leprosos. Esta isla había sido anteriormente visitada por una comisión de oficiales quienes se pronunciaron en favor de ella para dicho objeto, manifestando que la población consistía en sólo unos 200 ó 300 naturales muy pobres, quienes podrían ser probablemente removidos sin grandes dificultades, y que había muy pocas propiedades en la isla, de modo que los derechos de propiedad que poseían sus habitantes podrían ser adquiridos por el Gobierno por poca cosa.

Hicimos una corta estancia en Calapán, Mindoro, para investigar la situación política allí, y otra corta parada en la isla de Cuyo donde hicimos una tentativa infructuosa para obtener un intérprete competente para que el comité tuviera la seguridad de comunicar con los habitantes de Cagayán de Joló.

Llegamos a Cagayán de Joló el 14 de Diciembre poco antes del mediodía. Hicimos una tentativa para anclar en el extremo noroeste de la isla cerca de donde se decía que vivían el intérprete y el representante de los Estados Unidos. Encontramos imposible encontrar un ancladero, sin embargo, y el vapor se vió obligado a parar mientras nosotros desembarcamos y tratamos de ponernos en comunicación con el intérprete. Los individuos a quienes encontramos en la costa iban todos armados, y aunque aparentemente de disposición amistosa, no podían o no querían entender ni el español ni el tagalo. Trás de muchas dificultades nos enteramos de que el Capitán Mariano, a quien nosotros buscábamos vivía hacia el oeste detrás de un promontorio que nos señalaron. Volviendo al barco seguimos costeando hasta dicho punto e hicimos un segundo desembarco. Aquí encontramos la gente algo más comunicativa y nos enseñaron la casa de Mariano a unos 5 millas de distancia. Volvimos otra vez al barco, pero como el tiempo se puso borrascoso con fuertes chubascos, nos vimos obligados a abandonar la tentativa de ponernos en contacto con el intérprete y dirigirnos a la costa del sur en busca de refugio.

Durante la noche el viento roló y sopló con violencia del sudoeste de modo que el barco se vió obligado a andar en busca de alta mar. A la mañana siguiente volvimos a la vecindad de la casa de Mariano pero el mar estaba tan alborotado que no pudimos echar el bote. Por fin encontramos un ancladero algo seguro cerca de la extremidad este de la isla y desembarcamos tres grupos. Uno bajo el ingeniero de sanidad se dirigió al pico más alto de la isla con el objeto de tomar visuales a los puntos más importantes y verificar la existencia de los cursos de agua marcados en el mapa; otro bajo el Comisionado de Salud Pública se dirigió directamente al centro de la isla; y el tercero, bajo el Secretario de lo Interior siguió un sendero que se destacaba muy claro cruzando una línea de colinas al este. Se pasó todo el día explorando la isla. Habiéndose encontrado impracticable para todos los grupos el llegar a la casa de Mariano, se envió un mensajero para pedirle que atravesara la isla y se viniese al barco.

El trabajo aquel día demostró conclusivamente que los varios pequeños arroyos y el río indicado en el mapa no tenían realmente existencia y que el lago que indicaba el mapa cerca del centro de la isla no existía; no era mas que un pantano al centro de un calle algo extenso en el cual desembocaba el agua que fluía de todas direcciones sin tener salida. Este pantano según se nos dijo, se seca por completo en la estación de secas.

El trabajo del día también demostró que el número de habitantes de la isla había sido muy bajamente calculado por la junta que presentó el primer informe.

A las 8 de la tarde el intérprete, Mariano León y Legaspi, se vino a bordo del vapor y tuvimos una larga entrevista con él. Este caballero había estado residiendo en Cagayán de Joló por once años y conoce la isla perfectamente. Nos informó que la población mora tenía no menos de 3,000 almas; que había dos datos importantes, a saber; el Dato Dakulá y Haji Dato Hamil Tamya. Hay además otros cuatro datos, hijos o sobrinos de los dos arriba mencionados, sin súbditos aún y que ejercen poca si no nula influencia.

Averiguamos que había en la isla unos 40,000 cocoteros aprovechables y áreas extensas sembrados de plátanos. Una pequeña parte de la tierra estaba sembrada de arroz y había unos 500 cabezas de vacuno, cuyo número era limitado debido a la falta de un abasto suficiente de agua.

Los moros obtenían el agua de beber de pozos poco profundos de 6 a 10 piés de profundidad, que al tiempo de nuestra visita sólo tenían 1 ó 2 piés de agua, de un color perlado, lo que demuestra evidentemente que debería contener sustancias minerales en alguna cantidad. Se nos informó que durante la estación de secas casi todos estos pozos se secaban de modo que era necesario para muchos de los habitantes ir a 5 ó 10 millas en busca de agua potable, y que durante la estación de lluvias el agua de estos pozos se corrompía por el desagüe del suelo.

Se hicieron preguntas minuciosas respecto al abastecimiento de aguas de la isla, y averiguamos el hecho de que en cierto punto hay un estanque de unos 24 metros de diámetro conocido por Bojekukuk, el cual es muy profundo y fluye a un pasaje subterráneo que según creencia de los naturales comunica con un pequeño lago circular de agua dulce, situado a pocos centenares de yardas de la costa sur de la isla y separado de él por roca firme. El nivel del agua de este lago es próximamente el del mar, y el pequeño estanque a que aludimos está situado cerca del fondo de un extenso valle, de modo que aún cuando el agua de cualquiera de estos dos se encontrara buena para beber y en bastante cantidad, se necesitaría una grande fábrica de bombas con el objeto de distribuirla entre una población de 8,000 a 10,000 almas, que es probablemente el mínimum que podremos esperar que tendrá nuestra colonia de leprosos.

Finalmente, averiguamos con certeza que Cagayán de Joló no tiene puerto ni ningún buen ancladero. La isla es tan pequeña que la alta marejada se estrella contra ella ya para deshacerse o rebotar a todo lo largo de la costa que en toda su extensión está poblada de arrecifes, unos grandes, otros pequeños, tan cercanos a la superficie que constituyen una playa peligrosa en un temporal.

Se cree que el clima de la isla de Cagayán de Joló es saludable y el suelo fértil. Pero en vista de la ausencia de todo puerto seguro o un buen ancladero, la falta de un abastecimiento adecuado de agua fresca que pueda ser utilizado sin incurrir en grandes gastos y la gran dificultad y costo que se encontrará en adquirir los títulos de propiedad de una población de 3,000 moros y sacar a estos de la isla, el comité decidió por unanimidad y sin vacilaciones que Cagayán de Joló no se adaptaba a las condiciones que se necesitarían para la leprosería en proyecto.

Al día siguiente, por lo tanto, nos marchamos para Culión. Encontramos un temporal muy fuerte, y después de estarlo combatiendo día y medio nos refugiamos en Puerto Princesa, Palawan, donde permanecimos por veinticuatro horas para dejar a los oficiales y tripulantes del *Álava* un descanso muy necesario. Entonces continuamos nuestro viaje a Culión llegando allí a la tarde del 17 de Diciembre. Desembarcamos inmediatamente, y se pasó la noche en una conferencia con el teniente al mando de una pequeña guarnición actualmente destacada en el pueblo de Culión, un pequeño pueblo de unos 67 edificios, todos con excepción de 7, chozas de caña y nipa. La población calculada del pueblo es de 250 habitantes, todos los cuales, con excepción de tres familias, son pobres trabajadores.

La isla de Culión había sido visitada por la junta del ejército mencionada, pero limitaron su investigación a un paseo por la montaña desde el pueblo de Culión al barrio conocido como Baldat e informaron que la isla era impropia para las necesidades de una pequeña colonia, creyendo que la falta de extensos y fértiles terrenos agrícolas sería un obstáculo insuperable para el establecimiento de una colonia grande.

Esta junta no visitó el extenso y fértil valle conocido por Cogonal Grande (el gran campo), que ocupa la parte central de la isla con ramales a las costas del noroeste y sudoeste. El Secretario de lo Interior visitó este valle en 1891 y 1892 y tenía conocimiento personal de su existencia y extensión, por lo que se arregló una expedición para el siguiente día con el objeto de hacer una completa investigación.

Las primeras horas de este día se pasaron reconociendo el abastecimiento de agua del pueblo de Culión. Hay una hermosa fuente que da 19,400 galones por día en plena estación de secas. El agua dicen que es de excelente calidad. Dista del pueblo cosa de un cuarto de milla, y se le puede poner cañería a lo largo de la playa.

Con el objeto de evitar un paseo de 3 millas por las montañas fuímos en bote a Baldat. Desde ese punto una caminata de tres horas y media nos condujo a un hermoso vallecito que se extiende al oeste para su comunicación con Cogonal Grande y al este hasta casi cerca de la costa. Hace diez años había cierto número de casas en este valle pero actualmente no queda mas que una. El sendero que seguimos cruza una cadena de montañas que a su mayor altura alcanzan una elevación de 850 piés. El descenso desde este punto al vallecito aludido es algo abrupto, y aunque sería practicable el construir una carretera a lo largo de esta ruta, sería una empresa bastante costosa. La distancia de Baldat a este vallecito es aproximadamente 6 millas. Durante nuestra marcha desde Baldat cruzamos cinco hermosos arroyos de agua dulce, el cuarto discurría por el vallecito, y el quinto descendía de las altas colinas de que hablamos para pasar por detrás de la casa solitaria mencionada.

Después de un breve descanso proseguimos nuestra marcha al Cogonal Grande, que está a una distancia de milla y media. La ruta que seguimos sería practicable para un camión del Ejército con sólo quemar la alta yerba y poner puentes a dos pequeños riachuelos. La tierra está casi prácticamente a nivel en toda su extensión.

El Cogonal Grande es un valle plano que tal vez en alguna ocasión fué un lago de agua dulce. Tiene un suave declive por todos lados hacia el centro donde hay aun área considerable de terreno bajo y anegadizo, apropiado para la siembra del arroz. Desde este terreno bajo parte un arroyo que va a juntarse con los más grandes que corren por el vallecito.

El comité convino en que este vallecito y el Cogonal Grande constituirían una localidad ideal para la colonia en proyecto, facilitaba terrenos abundantes propios para el cultivo y ganadería. Una caminata de veinte minutos al sur por el segundo vallecito—en parte abierto y en parte cubierto de pequeñas cañas—nos condujo a otro hermoso arroyo de agua fresca, y el ingeniero de sanidad remontó su curso lo bastante para averiguar que podría ser llevada en cañería por la parte baja al Cogonal Grande. Nos informaron los naturales que venían con nosotros que este arroyo fluye constantemente todo el año aunque con un volumen algo reducido en plena estación de secas.

También fuímos informados que hay un puerto grande y seguro en la costa sudoeste de la isla a corta distancia del punto en que estábamos, al que se podía llegar sin cruzar ningunas montañas. Nos informaron que era un puerto cerrado que daba un refugio seguro durante los baguios, aunque la información estaba en contradicción directa con las instrucciones marítimas del mar de la China, en que se dice que las costas de Culión están rodeadas de peligrosos arrecifes a una distancia de 5 a 7 millas. Decidimos investigar la practicabilidad de llegar a este supuesto puerto, y si los hechos corroboraran las declaraciones, pedir al capitán del *General Álava* que tratase de entrar en él por el mar. Por lo tanto nos pusimos en camino temprano al siguiente día. Encontramos agua de marea cerca de las 12.30 después de una caminata de 5 ó 6 millas durante las cuales descendimos unos 150 piés sin perder distancia, porque el terreno a lo largo de toda la ruta, con excepción del último cuarto de milla, era tan plano que un carro del Ejército podría pasar toda la distancia después de desbrozar la caña y quemar la yerba. Durante el último cuarto de milla el sendero ladea una montaña atravesando un nipal por cierta distancia.

Tuvimos la seguridad de que los botes podrían llegar al punto que habíamos alcanzado. Siendo evidente que una carretera desde este punto al Cogonal Grande podría construirse con mucho menos costo que desde el pueblo de Culión, pedimos al Capitán Halsey del *General Álava* que investigara detenidamente la practicabilidad de entrar en el citado puerto. Por lo tanto aquella tarde cruzamos toda la isla quedándose el Secretario de lo Interior en Baldat para recoger datos de los vecinos respecto a la población y recursos de la isla, y yendo el resto de la comitiva a bordo del vapor que se dirigió a la mañana siguiente a la costa sudoeste. Las investigaciones hechas por el Capitán Halsey y otros oficiales del *General Álava* dieron los resultados más satisfactorios. Descubrieron un refugio completamente cerrado por el cual penetraron a distancia de 4 millas, no encontrando en ninguna parte menos de 17 brazas de agua. Se averiguó que podían entrar 1½ millas más aún. El Capitán Halsey calificó el puerto de "grandioso" y el Oficial Ejecutivo Chase dijo que sin excepción era el mejor puerto que había visto en las Islas Filipinas. El Capitán Halsey añadió que él conduciría allí sin ninguna vacilación el acorazado más grande a flote. Se encontró que dos riachuelos de agua dulce fluían al mismo y se envió una partida en botes a cada uno para explorarlos. Una de ellas llegó sin dificultad al punto de la orilla en que estuvimos el día anterior. La otra, bajo el Comisionado de Salud Pública, encontró otro lugar todavía más favorable para el desembarco siguiendo un río que en ninguna parte tenía menos de 6 pies de agua hasta que llegaron a un valle abierto cubierto de yerba en un terreno alto, que facilitaba oportunidad abundante para desembarcadero, poblado, etc. Cabe poca duda que este valle se comunica directamente con el otro que recorrimos el día anterior, aunque no tuvimos tiempo suficiente para averiguarlo.

Al siguiente día el vapor regresó a Culión y a la mañana después se convocó una reunión de propietarios de la isla en el tribunal de la población. Se les preguntó respecto al número de habitantes, número de casas y extensión de los terrenos cultivados fuera del pueblo, el número de vacunos en la isla, se le informó respecto al objeto de nuestro viaje manifestándoseles además que si era necesario expropiar sus propiedades que se les daría una compensación adecuada.

Parece que la población de Culión tiene de 800 a 1,000 almas, de los cuales más de la mitad son Tagbanuas, un pueblo salvaje e inofensivo sin residencia ni bienes propios. Los propietarios que se alistan más abajo son la mayor parte pobres trabajadores que antes se contentaban con un jornal diario de 5 céntimos y ahora están satisfechos con una peseta.

Lo siguiente es una lista de propietarios de importancia con una declaración de los bienes que alegan poseer. No existe en ningún caso ningún título por escrito de los terrenos reclamados, en cada caso el terreno se reclama por derecho de posesión actual:

Juan Palanca.—Nacionalidad china. Reclama 200 hectáreas de terreno actualmente bajo cultivo. Ha trabajado ese terreno por quince años. Tiene 10 hectáreas de azúcar y 10 de arroz. También 200 cocoteros, 100 cafetos, y unos 20 naranjos. Una casa de materiales ligeros y está construyendo otra de materiales fuertes. Un molino de azúcar que dicen vale 20 pesos.

Doroteo Rodríguez.—Reclama 15 a 20 hectáreas de terreno, unos 12 de los cuales están cultivados con arroz. Tiene unos 50 cocoteros, 100 cafetos y 50 cabezas de ganado. También dos casas de materiales ligeros que calcula valen 100 pesos.

Estefanía Rodríguez.—Reclama 56 hectáreas de terreno. Tiene unos 300 cocoteros, 30 cafetos, naranjas, mangas, bonga y nanca, 40 árboles de lo último. Tiene fincas que calcula en 90 pesos y unos 490 reses, incluyendo 90 carabaos.

Evarista Manlobi.—Reclama un pequeño terreno en Culión; además una pequeña isla en las cercanías. Esta última tiene cocoteros sembrados, unos 540. También 500 pequeños cafetos y otros árboles frutales. Tiene una casa pequeña para el encargado de los mismos.

Ignacia Pavero.—Reclama 7 hectáreas de terreno, 20 cocoteros y 4 carabaos.

Catalino Abreng.—Reclama 3 hectáreas de terreno. Tiene 70 cocoteros y 5 carabaos. También dos casas avaluadas en 25 pesos cada una.

Las personas aquí nombradas nos manifestaron que eran los grandes propietarios de la isla. Se dijo que algunas 20 personas reclamaban derechos a terrenos, pero los demás reclamaron valores insignificantes. Se verá por lo tanto, que fuera del área densamente poblada por el pueblo de Culión, no se reclaman más que unas 290 hectáreas de terreno, y éstas sólo son reclamadas por virtud de posesión actual. En estos terrenos hay como 8 casitas. Los demás bienes que se reclaman como propiedades consisten en 640 cocoteros, 730 cafetos, unos cuantos naranjos, nanca y otros árboles frutales, y 549 cabezas de ganado.

El pueblo de Culión está situado en un pequeño promontorio rocoso que sale al mar. Los edificios, que son unos 67, están muy cercanos unos de otros. Todos, excepto 7 de ellos son chozas de caña y nipa cuyo valor calculado es de 20 pesos cada una. Las demás casas son de materiales fuertes, y lo que sigue es una lista de los propietarios con sus valores según cálculos del Teniente Young, al mando de la guarnición del pueblo:

	Valor.[a]
Evarista Manlobi, 1 casa	$600
Juan Palanca, 1 casa	1,500
Señora Sandoval, 2 casas (1 de nipa)	450
Antonio Sandoval, 1 casa	1,200
Doroteo Rodríguez, 1 casa	350

Quedan para completar la lista un antiguo convento de poco valor, que se usa actualmente como cuartel, y un pequeño fuerte de piedra dentro del cual está enclavada la iglesia.

Esperamos con confianza que en ninguna otra parte del Archipiélago se encontrará una isla más salubre, extensa y fértil, con tan pequeña población. Es dudoso si habría necesidad de molestar a un pueblo tan pequeño como Culión porque estará a varias millas de distancia del emplazamiento proyectado para leprosería, siendo por lo tanto poca la probabilidad de que tenga intercomunicación con los leprosos.

Recomendamos:

(*a*) Que todo el terreno de la isla de Culión que no está a un radio de 3 millas de la iglesia del pueblo de Culión, sea destinado a leprosería, y que las personas que tengan título de posesión a terrenos cultivados dentro del área reservada se les dé una justa compensación por las pérdidas que sufrieren.

(*b*) Que no se permita a ninguna persona no leprosa vivir dentro del área reservada sin permiso por escrito del superintendente de la colonia, cuyo permiso se concederá solamente a las personas cuya presencia sea necesaria o provechosa para la debida administración de los asuntos de la colonia.

(*c*) Que se tome un censo exacto de la población de la isla de Culión inmediatamente, y que ninguna persona que no sea residente actualmente se la permita vivir allí sin permiso por escrito del superintendente de la colonia leprosa.

(*d*) Que no se permita a ninguna persona continuar viviendo en el pueblo de Culión después del 1.° de Junio de 1902, excepto los empleados relacionados con la leprosería y los miembros de su familia.

(*e*) Que se conceda una justa indemnización a todas las personas que quedan obligadas a abandonar a Culión por las fincas que tengan allí, las cuales fincas serán de la propiedad de la colonia, a menos que los dueños prefieran cederlos a otros residentes de la población, en cuyo caso no habrá indemnización.

(*f*) Que se prohiba visitar cualquier parte de la isla de Culión, fuera de un círculo de un radio de 3 millas desde la espiral de la iglesia de Culión como centro, a cualquiera persona que no sea leprosa sin permiso por escrito del Secretario de lo Interior o del superintendente de la leprosería.

(*g*) Que se construya un camino poniendo en comunicación Halsey Bay con Cogonal Grande y su vallecito más principal.

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[a] Pesos mejicanos.

(*h*) Que se construyan de acuerdo con los planos preparados bajo la dirección del Comisionado de Salud Pública y aprobados por la Comisión, una casa para el superintendente de la colonia, una para los médicos y empleados del hospital, un hospital para leprosos, y suficiente número de casas para acomodar cada una diez enfermos, y que dichos edificios sean provistos de un adecuado abastecimiento de aguas.

(*i*) Que se compren caballos, carabaos, vacas y toros para la colonia, y que se haga obligatorio a los dueños de otro ganado que lo retiren de la isla en o antes de primer día de Junio de 1902 con el objeto de evitar que los ganados se mezclen.

(*j*) Que se aparte un terreno para cada leproso capaz y deseoso de cultivarlo, y que se le faciliten semillas necesarias y aperos agrícolas.

(*k*) Que se construya una bodega en sitio conveniente en la bahía de Halsey, en o cerca del arranque de la vía que conduce a Cogonal Grande.

(*l*) Que las casas construídas para el acomodo de leprosos y leprosas sea en localidades muy distanciadas, y que la comunicación entre los dos sexos sea absolutamente prohibida.

(*m*) Que se permita al padre, madre, esposa, hermano, hermana o hijos de un leproso, u otro pariente cercano si no tiene éste padre, madre, esposa, hermano, hermana o hijos, ir a Culión y establecerse allí en una comunidad de no leprosos en lugar elegido por el superintendente de la colonia; si desean levantar casa, que se les dé una oportunidad para hacerlo, y si desean cultivar el suelo que se les destine para ese objeto una parcela de terreno que el suprintendente de la colonia crea conveniente. Todos los parientes de un leproso deben dejar el territorio un mes después de la muerte del leproso, y el terreno cultivado por ellos debe quedar de propiedad de la colonia así como también todos cuantos edificios hubiesen levantado antes de su marcha.

(*n*) La Junta de Sanidad de las Islas Filipinas queda autorizada y se le ordena que redacte otros reglamentos para el gobierno de la colonia, con sujeción a la aprobación del Secretario de lo Interior.

(*o*) Que los asilados de los lazaretos de Manila, Cebú y Palestina sean trasladados a la leprosería tan pronto como sea posible, de modo que los edificios actualmente ocupados por ellos puedan ser puestos en condición sanitaria y ser utilizados para otros fines del Gobierno.

(*p*) Que se promulgue una ley disponiendo el *control* y supresión de la lepra en las Islas Filipinas, y destinando la isla de Culión para una colonia de leprosos, que abarque cuantas de las anteriores sugestiones y otras que la Junta de Sanidad de las Islas Filipinas recomiende y sean aprobadas por la Comisión de Filipinas.

Muy respetuosamente,

DEAN C. WORCESTER,
Secretario de lo Interior (por el Comité).

Se observará que el informe del comité fué sometido por el Secretario de lo Interior a la Comisión el 1.° de Enero de 1902. Era el propósito del Gobierno el comenzar la tarea de trasladar a los habitantes de la isla y empezar las obras de edificación a principios de año, pero hubo una demora temporal a causa de una epidemia de peste en Manila que exigió la presencia del ingeniero de sanidad.

Llegado el tiempo en que ya había pasado todo el peligro de la peste, se presentó el cólera asiático, cuyo primer caso ocurrió el 20 de Marzo de 1902. La epidemia continuó durante todo el año y no solamente desmoralizó los trabajos sino que limitó los esfuerzos del Gobierno a medidas administrativas y contra el cólera.

El informe del ingeniero de sanidad que dió mano a los trabajos para poner la colonia en regla está fechado el 1.° de Septiembre de 1903, un año y ocho meses después que el comité para elegir un sitio había hecho el suyo a la Comisión.

Su informe es como sigue:

SEÑOR: En cumplimiento de su orden del 6 de Julio pidiendo un informe que comprenda las operaciones en la isla de Culión desde el 1.° de Septiembre de 1902, tengo el honor de someter el siguiente:

Allá por el 24 de Septiembre de 1902 recibí órdenes verbales de hacer un presupuesto de la cantidad que sería necesaria obtener para el trimestre que terminaba el 31 de Diciembre de 1902, con el fin de erigir una leprosería en Culión. Ya había sometido otro presupuesto anterior en Marzo de 1902 el cual no fué aceptado por el Comisionado de Salud Pública por considerarlo excesivo. Yo revisé cuidadosamente el trabajo, pero no teniendo otros conocimientos adicionales, envié el mismo cálculo el 26 de Septiembre. En Noviembre recibí orden de ir a Culión preparado para comenzar los trabajos. Por un motivo u otro la expedición no partió hasta el 10 de Diciembre de 1902. Este tiempo o intérvalo me permitió hacerme de las provisiones más necesarias. Bajo la guía de Mr. Worcester, Secretario de lo Interior, hicimos una visita al lugar elegido para leprosería, en donde me dió las últimas instrucciones respecto a lo que deseaba.

El cálculo era para 100 casas, aunque debería trazar planos para 1,000 que eran las que se necesitaban. Se eligieron los emplazamientos para los edificios principales, adoptándose un plan general de calles y manzanas.

El 18 de Diciembre la expedición constructora desembarcó en un punto de la bahía de Halsey con 6 u 8 obreros naturales de Culión. El lugar era muy impropio para un campamento y tuvimos que vencer muchos inconvenientes.

El 13 de Enero de 1903, 59 obreros y 2 capataces llegaron de Cuyo. Hasta esa fecha no se había hecho prácticamente nada. No teníamos botes y no podíamos ir a ninguna parte por el bosque. Se nos envió un bote en Enero y durante ese mismo mes los naturales, bajo la supervisión de Mr. Louis J. de Puy, el capataz general, construyeron varias balsas. También construímos en seguida un corral de pesca a fin de obtener un abasto de pescado fresco para el campamento. Se empezó un pantalán que prolongamos hasta 210 pies en agua honda. Tratamos entonces de aserrar planchas para el suelo del pantalán, pero este trabajo estaba fuera del alcance de los naturales y se tuvo finalmente que abandonar como desesperado. En el arranque del pantalán desbrozamos y nivelamos un espacio y construímos una bodega. Hasta este punto el trabajo de los naturales dió excelentes resultados, puesto que todo estaba limitado a un área reducida y todo el personal podía ser inspeccionado por los americanos. Finalmente se hizo necesario aumentar la fuerza y dividirla en tareas diferentes. Se mantuvo un grupo en el campamento original, se envió otro para hacer nipa, y el tercero se le mandó limpiar el terreno para la carretera en proyecto. Bajo los capataces nativos los obreros resultaron casi inútiles a menos que hubiese un americano presente para verlos. Se les dió trabajo a destajo, se impusieron multas, se despidió a cuantos se encontrara holgazaneando, pero se consiguió muy poco, causándose gran descontento. Los naturales, ya sea capataces u obreros, nunca se delataban unos a los otros, y en consecuencia muchas veces los buenos eran castigados con los culpables. Los capataces no servían para nada mas que para intérpretes y nunca usaban su inteligencia y energía más que para picardías con el fin de usar a los obreros para fines personales. Poco a poco se fueron descubriendo estas tretas y despedimos a los culpables, por más que eran los únicos naturales en la expedición con alguna inteligencia. Ascendimos a los trabajadores mas activos a capataces inferiores, pero en todos los casos, con una sola excepción, echábamos a perder un buen trabajador para hacer de él un inútil capataz.

Durante el mes de Marzo, los trabajos cerca del primer campamento estaban casi terminados y trasladamos la expedición al sitio destinado para leprosería, comenzándose a recoger los materiales y principiándose la construcción de una casa. Nuestros verdaderos aprietos empezaron aquí. Los hombres destinados para recoger materiales hubo necesariamente que esparcirlos por el bosque en pequeños grupos bajo el cargo de un subcapataz nativo. Una vez perdidos de vista en la espesa vegetación era imposible el seguirlos y no hacían nada. Yo tomé pequeños grupos para las diferentes clases de trabajo y me encontré con lo que era de esperar, así es que organizó el trabajo a destajo. Esto causó continuos disgustos entre ellos, así como la degradación de los subcapataces a obreros y el nombramiento de otros capataces, el señalamiento de tiempo a los grupos, y la despedida de cuantos se encontraban holgazaneando.

De acuerdo con las promesas que se les hicieron cuando vinieron, se permitió a más de 100 de ellos que regresaran a Cuyo el 19 de Marzo, y desde esa fecha fué imposible aumentar la fuerza lo bastante, porque la gente se hallaba descontenta por varias razones.

La ración ordinaria tuvo que ser aumentada, y recomendé que se les diera la ración de la Constabularia.

Los filipinos están acostumbrados a tener sus mujeres con ellos, y pronto se sienten tristes y descontentos si no las tienen. Se tomaron disposiciones para permitirles que trajeran sus familias consigo. Están acostumbrados a no tener ningún dinero y lo poco que tengan lo quieren gastar en seguida. En teniendo un poco de dinero ya no quieren trabajar.

El camino desde el desembarcadero al campamento tiene de largo 4½ millas, y se puede hacer de él una buena carretera pues las rampas son muy suaves. Sin embargo necesitaremos numerosos puentes y conductos, y en el desembarcadero necesitaremos hacer obras extensas y costosas. Habrá siete puentes que exceden de 60 pies de largo, pero en algunos casos será perfectamente factible el dividir el arco por un poste central. Habrá cuatro puentes más pequeños y un número todavía indeterminado pero numeroso de conductos. Para conveniencia de la colonia deben construirse otros puentes grandes cerca del emplazamiento de la colonia. Exceptuando el hierro y el cemento, se pueden encontrar a mano buenos y abundantes materiales para la construcción. También se puede obtener con facilidad y a poco costo suficiente balaste para los caminos, aunque la roca no es de buena calidad. El costo por milla de camino macadamizado será menor que el ordinario pero los gastos de entretenimiento serán mayores.

Se ha construído una casa con ayuda de los trabajadores. Costó mucho más que la cantidad calculada, se levantó muy despacio, y no ha sido bien construída. Además se necesitó una inspección muy detenida. Deben enviarnos verdaderos carpinteros para este trabajo.

El cálculo original era para 100 casas mientras que las instrucciones de ahora es el de construir 1,000. Yo creo que podremos conseguir madera suficiente para este número, aunque naturalmente se tendrá que obtener en parte de más lejos, pero el abasto de nipa que hay en la isla no será suficiente.

Tuvimos un recio temporal en Junio que sacudió bien la única casa construída. Esta casa estaba mejor reforzada que las casas ordinarias de los naturales del país, pero no lo estaba tan bien como debía estar según la teoría de los refuerzos. En todos los puntos en que la teoría no se puso en práctica la casa presentó lugares débiles. Clavos de 1 pulgada de diámetro hechos de madera dura del país quedaron bonitamente cortados por la presión del viento. Harigues enterrados a 4 pies o más en el suelo se salieron de la perpendicular, y durante las fuertes rachas las vigas del techo se desviaban en su centro de 3 hasta 6 pulgadas haciendo crugir a toda la casa. Se dieron órdenes para que el suelo de las casas estuviera a 7 piés sobre el terreno, pero en mi ausencia, este edificio se levantó según los planos y se puso el suelo a 4 pies sobre el terreno. Es probable que con los 3 piés más de altura el viento hubiera hecho mayores estragos.

Estas casas no deben ser hechas más altas de lo que exige o es esencial para la salud por el motivo arriba indicado y por economía en la construcción. Los métodos del país para reforzar no deben ser admitidos y todas las casas que en adelante se construyan deben de ser reforzadas del mejor modo conocido, para lo cual se deben emplear obreros artífices, cueste lo que cueste. Además debemos emplear suficiente número de americanos para vigilar los grupos de trabajadores que salen para recoger materiales.

La distancia de la colonia a una vía fluvial en la ribera del norte es de 2 millas menos que la ruta que ha sido ahora elegida. Es perfectamente factible un camino hacia la bahía del norte, aunque el terreno es más accidentado, de modo que el costo del mismo tal vez difiera poco del camino más largo. Pero sus gastos de entretenimiento serían menores y la distancia para la carga se reduciría a una mitad. El estero o río en que la carretera termina es y puede hacerse mucho más preferible que la del sur.

El agua superficial visible en la colonia es insuficiente para la población que se calcula que tendrá, usando el cálculo más bajo, unos 5,000 leprosos. Una corriente de agua clara, hermosa y cristalina, dió una velocidad constante en la superficie de 55,000 galones por 24 horas durante la estación de secas. Otra corriente de unos 30,000 galones está a un cuarto de milla al oeste del primeramente mencionado. Estos dos arroyos continuaron con una corriente superficial durante toda la estación de secas este año, que según dicen los naturales de la isla ha sido de una sequedad extraordinaria. Yo me inclino mucho a creer que la corriente bajo la superficie dará mayor valor a las cifras anteriores. Este año no me ha sido posible comprobar esta creencia, porque el Agente Comprador Insular no ha podido facilitarme la maquinaria necesaria para el objeto.

Se cavó un pozo para estudiar el agua bajo la superficie si fuera posible. Este resultó bastante satisfactorio, pero otra vez la falta de maquinaria dejó el asunto algo dudoso. Primeramente taladramos una capa delgada de arena con agua, y achicando el agua vigorosamente la tuvimos bajo *control* hasta una profundidad de 7 metros; entonces nos encontramos con otra capa más gruesa de arena y el agua penetró en el pozo en tal cantidad que fueron inútiles todos nuestros esfuerzos para dominarla. El nivel del agua subió rápidamente a 10 piés, y después más lentamente 2 piés más. Los charcos de agua fresca en los cauces de arroyos secos en los varios valles laterales demuestran que existe agua subterránea en muchos puntos. El recoger y utilizar esta agua de muchos puntos sería muy costoso, y a menos que se pueda obtener suficiente agua subterránea de un solo lugar, será imposible instalar la colonia entera en este valle. La parte norte de la isla de Culión está mejor abastecida de agua que la del sur.

En el pueblo de Culión hay un manantial grande cerca de la playa, pero demostró indicios de decaer durante el final de la actual temporada de secas. También existe un manantial pequeño detrás del poblado. A cierta distancia al sur del pueblo hay otros manantiales, y más allá, al sur de la hacienda del Sr. Sandoval, hay un hermoso manantial de agua de considerable volumen aún a fines de la estación de secas. En Baldat había arroyos de corriente superficial durante toda la temporada de secas, cuyas medidas, sin embargo, se tomaron tan tarde durante el año que es probable que algunos de ellos por lo menos habían sido afectados por las lluvias que habían caído. El arroyo más oriental tenía un flujo de 67,000 galones por veinticuatro horas; el siguiente al oeste 5,000 galones, el siguiente tenía charcos de agua pero no fluía, el siguiente y el más occidental—a 1 milla del más oriental—fluía 30,000 galones. Además existen varios manantiales y muchos indicios de agua subterránea.

A cierta distancia al oeste de Baldat hay un valle estrecho de unas 3 millas de largo. Por este valle fluye una corriente de agua que durante todas las temporadas tiene un volumen de unos 43,000 galones cada veinticuatro horas. Un poco más al oeste está la hacienda "Onisan," propiedad del Sr. Palanca. Existen varias corrientes de agua en esta propiedad que es muy extensa. Una de estas corrientes fluía a razón de 24,000 galones a fines de la temporada de secas, y sin haber tomado medidas creo que el otro tiene más corriente. Habia otro río que apenas puede decirse que corría pues no era más que una continua serie de agua no estancada. El caudal principal no era más que un hilo de agua corriente, aunque el Sr. Palanca dijo que nunca, en cuanto sabe, había sido tan escasa, pues de ordinario tenía una corriente bastante buena. Se encuentra agua subterránea a 3 metros bajo la superficie.

Al sudoeste de este lugar está la hacienda del Sr. Mayo. Es un valle pequeño pero tiene dos buenos ríos, los cuales sin embargo no medí.

Si se llega a decidir por un cambio de lugar de la leprosería hacia el norte, allí se encontrará suficiente cantidad de buena madera para la construcción de todas las casas que se deseen. Probablemente una lancha sería muy útil, y como la bahía está prácticamente cerrada, no se necesitará una lancha grande.

El problema del traslado por tierra quedaría muy simplificado con tal cambio, y se podría hacer más efectiva la separación de los sexos con construir en parajes distanciados donde se pueda encontrar agua.

El actual sitio está hermosamente situado; tiene un desagüe bueno y natural, grandes campos abiertos, y casi siempre una brisa refrescante; pero a pesar de todos estas ventajas, la reputación de que el lugar es insalubre quedó plenamente corroborada en cuanto se aproximó la temporada de lluvias. Casi toda la expedición, así los trabajadores como los de la oficina, se puso enferma, y lo mismo puede decirse de los guardias y de los presos enviados de Bilíbid. Tan generalizada era la enfermedad que debió haber sido causada por el abastecimiento de agua, sin embargo de que ésta no tenía posibilidad de haber sido contaminada por el hombre. El agua debe ser pasada por un filtro de arena, y lo mismo creo que puede decirse de la mayor parte de los abastos de agua naturales de los trópicos. La fiebre malaria era la enfermedad más frecuente; también hubo algunos casos de beriberi y otros de dolores fuertes de vientre que dejaba a los enfermos muy débiles y con poca fuerza para recuperarse. Había mosquitos pero no muchos.

No es imposible, pero parece impracticable obtener un abasto suficiente de agua para todas las personas que han de ser enviadas a la isla.

Yo por lo tanto recomiendo que la colonia sea construída por grupos basados en el abasto de agua que se pueda fácilmente obtener. Aunque por muchos conceptos esto no sea deseable, este arreglo tiene muchas ventajas para ser recomendado.

Los desembolsos hasta el 30 de Junio de 1903 de los presupuestos para la leprosería de Culión, Ley No. 490, han sido de unos $7,000 en moneda de los Estados Unidos. No se puede hacer todavía una cuenta exacta por no haberse recibido todas las cuentas de Junio y una declaración completa del Agente Comprador Insular.

La distribución ha sido como sigue:

	Moneda de los E. U.
Salarios	$1,658
Jornales	1,654
Provisiones, equipo, etc	3,688

La alta proporción de los salarios a los jornales se debe al hecho de que el personal de oficina tuvo que ser necesariamente retenido mientras no se encontraban obreros.

Se llama la atención en particular a los jornales en comparación con el trabajo obtenido. A juzgar por la base de los jornales pagados, se ha conseguido bastante.

Muy respetuosamente,

H. G. OSGOOD,
Ingeniero de Sanidad de las Islas Filipinas.

Al COMISIONADO DE SALUD PÚBLICA,
Manila, I. F.

La ensenada mencionada en el informe del Secretario de lo Interior fué denominada Puerto Halsey, por el nombre del capitán de vapor *Álava* aludido en dicho informe. Después de varios trabajos practicados en dicho Puerto de Halsey se le abandonó a causa de su poco fondo. El Buró de Agricultura mantuvo por algún tiempo una ganadería en dicho lugar pero tuvo finalmente que abandonarlo.

El lugar del antiguo poblado de Culión fué finalmente escogido para la leprosería. La propiedad de los naturales fué comprada a buen precio según recomendación de Mr. Worcester.

El Dr. Charles F. de Mey, ex-capitán y cirujano auxiliar de los Voluntarios de los Estados Unidos, que había estado sirviendo como funcionario médico de la Oficina de Sanidad, fué nombrado funcionario inspector de la colonia con el objeto de prepararla para el recibo de los enfermos.

Mientras el progreso de los trabajos para preparar la isla para ser ocupada estaba sujeto a vejámenes dilatorios causadas por la mano de obra, el transporte y otros problemas, siguió adelante sin embargo sin ninguna interrupción desde que se comenzó.

En su informe del 1906, el Director de Sanidad podía manifestar bajo en el encabezamiento "Lepra" y la "Colonia leprosa de Culión," que:

> Es un deber muy halagüeño para el abajo firmante el manifestar que durante el año se tomaron los primeros pasos que, cuando lleguen a su fin, dan promesa de que la lepra quede finalmente eliminada de las Islas Filipinas. Durante los últimos centenares de años el cuidado de aquellos bastante desgraciados para contraer la lepra había recibido considerable atención en las Filipinas, pero un estudio algo detenido de la historia demuestra que este trabajo era de una naturaleza más o menos caritativa, así es que no se podía esperar la final desaparición de la enfermedad. Era costumbre el admitir en los lazaretos a los leprosos que no podían ganarse la vida o no tenían ninguno que los mantuviese. Esto dejó en libertad a muchos que todavía no habían llegado a ser una carga pública, y en consecuencia, hubo amplia oportunidad para que la enfermedad siguiera propagándose indefinidamente. Era con el objeto de disponer un aislamiento completo porque se adoptaron planes casi desde el principio del actual gobierno civil para destinar una isla para dicho objeto, pero hasta este año no se había adelantado lo suficiente para dar comienzo a la segregación de los leprosos.
>
> La construcción de la leprosería de Culión, situada en la isla de Culión, que ha sido destinada para dicho fin, llegó a su término durante el mes de Mayo durante el cual se pudo cuidar de 800 leprosos. De este número unos 500 están ya en Culión. Las 300 vacantes se cubrirán tan pronto como la ley actual de presupuestos ponga créditos disponibles para dicho objeto.
>
> Se calcula que mas o menos debe haber de 4,000 a 5,000 en las Islas. También calculamos que necesitaremos un gasto de 50 centavos (25 céntimos en moneda de los Estados Unidos) al día por cabeza de parte del Gobierno para su alimentación, material para casas, ropa, pasaje, administración, etc., para mantener a todos. En números redondos necesitaremos un crédito anual de ₱800,000 ($400,000 en moneda de los Estados Unidos). El Gobierno no podrá actualmente sostener un presupuesto constante de tanta cuantía.
>
> Si la inmediata segregación de todos los leprosos en las Islas fuera una garantía absoluta de que no ocurrirán más casos, sería indudablemente ventajoso bajo el punto de vista económico el tomar dinero prestado y aislarlos inmediatamente porque en pocos años la carga quedaría totalmente eliminada, pero en vista del hecho de que no hay suficientes conocimientos facultativos al efecto de que la segregación causaría la completa desaparición de la enfermedad, un empréstito para dicho fin apenas tendría justificación. Afortunadamente, sin embargo, la situación geográfica de las Islas es tal que los actuales recursos y las demandas de la higiene práctica pueden acomodarse hasta cierto punto.
>
> El actual plan es el de segregar a todos los leprosos de las islas que están bien aisladas para tener comparativamente pocas víctimas.
>
> De esta manera se podrá limpiar de leprosos de una vez una gran extensión de territorio o área, y una vez suprimida la principal fuente de infec-

ción muy pocas personas quedarán atacadas en dichas secciones en lo sucesivo, y las pocas que ocurran podrán ser inmediatamente aisladas. Es nuestra intención el segregar solamente aquellas personas que sean declaradas leprosas por medio del reconocimiento microscópico si se encuentran los bacilos de la lepra en los tejidos.

Los leprosos de las Islas de Mindoro, Masbate, Romblón, (que incluye Tablas y otras islas bajo el mismo gobierno provincial), Siquijor, Negros Oriental, Negros Occidental, Negros, Palawan, y Cuyo han sido ya recogidos. Se ha observado un hecho muy notable durante la recolección de los leprosos en las islas arriba mencionadas, a saber: que solamente la mitad de los anteriormente reportados como leprosos resultaban, después de una detenida investigación, tener la enfermedad. Esta misma proporción, si se mantiene en las demás islas, hará que el número que se ha calculado de los leprosos sea mucho menor que la que se calculó, y la solución del problema de la lepra no sería un asunto tan grave como primeramente se supuso.

La cuestión de que los leprosos contribuyan de alguna manera a su mantenimiento ha recibido la más cuidadosa atención, y la observación más directa de ellos nos ha demostrado que no podemos esperar mucho en este particular. La enfermedad produce pronto tales contracciones en las extremidades, destrucción de los tejidos, pérdida de los dedos de los pies y las manos, complicaciones nerviosas que resultan en pérdida de fuerza muscular y debilidad general, que solamente una pequeña proporción de ellos son capaces de ejecutar la cantidad de trabajo manual que sería necesario para las operaciones agrícolas que contribuyesen a ayudar a su sustento. Mientras hay otras ocupaciones más ligeras en las que una buena proporción de ellos se pudiera dedicar, los artículos que produjesen, sin embargo, no serían de tal naturaleza que les fuesen útiles, y la repugnancia que siente el público por los objetos que han sido manoseados por los leprosos, aún después de bien esterilizados, excluiría la posibilidad de su venta con ganancia. Además hay tantos de ellos postrados en cama, y otros con heridas y úlceras que reclaman tanta atención, que una buena proporción de los servicios de los todavía no muy afectados debe ser dedicada a los que no son tan afortunados. Los deberes domésticos, el cocinar, hacer ropa, atenciones de la casa, limpieza y cuidado de las calles, reparaciones a los edificios, etc., exigen todo el tiempo de muchos más, de modo que la suma total de cuanta mano de obra resta efectiva ha de ser muy pequeña.

La cuestión de establecer una ganadería se está ahora considerando. Parece que esta es una ocupación ligera en la que podrían dedicarse con éxito. A causa del hecho de que el ganado no contrae la lepra, que puede ser sacrificado por personas no leprosas y que la carne tiene que ser necesariamente cocida antes de comerse, no creo que el público tendría tanta objeción a que tal carne se colocara en los mercados.

El trabajo de la recogida y traslado de los leprosos que ahora están en Culión no ha presentado tantas dificultades como al principio se esperaban. A causa del hecho de que era conveniente, por razones administrativas, el reducir el número de plazas en que se cuidaban los leprosos tan pronto como fuera posible, se decidió el trasladar a los leprosos que hasta ahora habían sido mantenidos en el Hospital de San Lázaro y en Cebú, y en cerrar este último establecimiento. De acuerdo con esto, el 22 de Mayo de 1906 el Médico Inspector Goff y el abajo firmante, nos dirigimos con los guardacostas *Polillo* y *Mindanao* a Cebú. Con la asistencia del Médico Inspector Pond, que interinaba de presidente de la junta provincial de Cebú en dicha ocasión, los leprosos fueron trasladados en embarcaciones a los buques. Se distribuyó un total de 365 leprosos entre ambos vapores. Estos salieron de Cebú el 27 de Mayo haciendo el viaje sin novedad a Culión, a cuyo lugar llegamos en la tarde del 28 de Mayo. El médico oficial al cargo de la colonia había hecho todos los arreglos necesarios para recibir a los leprosos. Cuatro hermanas de la caridad, pertenecientes a la orden de San Vicente de Paul, ya estaban en el Hospital sirviendo en calidad de enfermeras para los que exigían más o menos asistencia facultativa. Un sacerdote de la orden de los Jesuitas, el Padre Vallés, fué destinado a la colonia, y ayudó a recibir a los leprosos. Los últimos quedaron muy sorprendidos y contentos con sus nuevos alojamientos y expresaron su profunda satisfacción por las disposiciones que se habían tomado para ellos.

La colonia actual consiste en unas 125 casas nuevas de nipa, cada una lo bastante grande para acomodar de 5 a 7 leprosos. Estas casas están construídas según un sistema de calles, de modo que han resultado un bonito poblado. La localidad de este nuevo pueblo está situada en un promontorio que baja por todas direcciones al mar; la parte más alta tiene unos 150 piés sobre el nivel del mar, habiendo por lo tanto un excelente drenaje. Hay un depósito situado a una altura de 230 piés sobre el nivel del mar al que se envía el agua procedente de un manantial por medio de una bomba de gasolina. De allí el agua es conducida a todas partes del nuevo pueblo por medio de un sistema de tuberías instalado. Se han colocado también los baños necesarios, inodoros modernos, y lavanderías para la ropa. Tienen un completo sistema de alcantarillado que desagua en el mar después de pasar por tanques sépticos, con capacidad para disponer de todos los excrementos. Se les han facilitado instrumentos musicales de modo que puedan organizar una banda de 40 individuos.

El antiguo pueblo de Culión, del que quedan todavía algunas casas buenas, compradas a los antiguos residentes, tiene edificios para una presidencia o casa del pueblo, y residencias para el presidente y los concejales. Una excelente iglesia de mampostería, construída en tiempo de los españoles, actualmente en buen estado, puede ser utilizada por los habitantes de la colonia.

A los leprosos se les ha dado toda la libertad posible, y están en gran manera reglamentados por reglas redactadas por ellos mismos. Se les permite castigar a los infractores de sus propios reglamentos de la manera que crean conveniente. Con el objeto de darles una forma adecuada de gobierno se les permite elegir a su propio presidente y a diez concejales. También se ha organizado una fuerza de policía consistente en 12 hombres, cuyo deber es vigilar que el pueblo esté en buenas condiciones sanitarias así como también el arrestar a los infractores de sus propias ordenanzas.

Se ha provisto alojamiento para los empleados no leprosos al otro lado de la colina desde la colonia a una distancia de cerca de un cuarto de milla. El director de la colonia vive en una casa situada a través de la lengua de mar, a unas 2 millas de distancia a la que se llega con facilidad por una lancha que tiene la colonia.

Después que los leprosos de Cebú fueron trasladados se decidió trasladar los de las islas de Mindoro, Romblón, Masbate, Siquijor, Negros, Palawan y Cuyo. Se tomó ventaja del hecho que a mediados de Junio el Secretario de lo Interior se hallaba practicando una inspección de la Provincia de Mindoro, en cuyo viaje circumnavegó la isla. A causa de sus escalas en tantos puertos pequeños, se destinó al Médico Inspector Goff que le acompañara con instrucciones de recoger a todos los leprosos de la isla si fuese factible. No fué posible el recogerlos a todos de una vez pero los trabajos progresaron lo suficientemente para que una vez regresado el Secretario de lo Interior a Manila solamente fuera necesario para el Dr. Goff escalar en dos puertos con el fin de recogerlos a todos. En el entretanto se enviaron instrucciones a los funcionarios locales de sanidad de otras islas ordenándoles que reunieran a todos los leprosos de sus respectivas provincias en un puerto. Estas órdenes fueron bastante bien cumplimentadas por lo que el Médico Inspector Goff, que estaba al cargo de la recogida de los leprosos pudo hacer un viaje rápido escalando en los puertos de Romblón, Masbate, Cápiz, Dumaguete, Bacolod y Cuyo. Llegó a Culión en la tarde del 4 de Julio con 125, no habiéndole fallecido más que 1 leproso durante la travesía. En otra parte de este informe se ha llamado ya la atención al hecho de que no todas las personas sospechadas de lepra se hallaron realmente afectadas de dicha enfermedad. El Médico Inspector Goff llevaba consigo un equipo completo de microscopia, y siempre que se presentaban casos en que el diagnóstico era dudoso, practicó un reconocimiento microscópico, y a menos de encontrarse los bacilos de la lepra el caso no era recogido. De esta manera el número de casos se redujo a casi una mitad del primeramente participado.

En 1908 la Legislatura votó fondos suficientes para el traslado a Culión de todos los leprosos, pero debido a la imposibilidad de suficiente mano de obra para levantar los alojamientos necesarios para ellos, esto no se hizo hasta 1911.

El informe de 1908 manifestaba que:

Los trabajos en el proyecto que tenía por fin la segregación de todos los leprosos de las Islas Filipinas en Culión comenzó en realidad durante el mes de Mayo de 1906. Hasta esa época la ayuda que se daba a los leprosos tendía más al auxilio de cada leproso individualmente; el proyecto más extenso de suprimir esta enfermedad en el Archipiélago nunca se había emprendido seriamente. En vista de las opiniones encontradas respecto a si se conseguiría esto con la segregación y el problema económico de tan gran proyecto, hubo considerable demora en comenzar la empresa.

El trabajo actual de recoger a los leprosos y de cuidarlos hasta que vengan por ellos todavía presenta obstáculos, algunos de ellos al parecer inabordables a veces. Sin tener en cuenta cual sea la opinión del pueblo en general, cuando llegamos a las personas que tienen que hacer el verdadero trabajo de conducirlos a un puerto, proveer a su alimentación, llevarles a bordo de los barcos, practicar el necesario reconocimiento facultativo, atender a sus necesidades, la experiencia ha demostrado una y otra vez que estas personas son muy difíciles de encontrar, y que solamente aquellas poseídas de gran entereza pueden ser inducidas que continúen en dicho trabajo. Una de las mayores ayudas ha sido la promulgación de la Ley No. 1711 titulada "Ley que dispone la aprehensión, detención, segregación y tratamiento de los leprosos en las Islas Filipinas."

Esta Ley es como sigue:

"LEY QUE DISPONE LA APREHENSIÓN, DETENCIÓN, SEGREGACIÓN Y TRATAMIENTO DE LOS LEPROSOS EN LAS ISLAS FILIPINAS.

"*Por autorización de los Estados Unidos, ordénase por la Comisión de Filipinas, que:*

"ARTÍCULO 1. Por la presente quedan facultados el Director de Sanidad y sus agentes autorizados para hacer aprehender, detener, aislar, separar o recluir, a todos los leprosos de las Islas Filipinas, y mediante solicitud del Director de Sanidad, será deber de todo funcionario insular, provincial o municipal que tenga facultades de policía, hacer que se arreste y entregue al Director de Sanidad o sus agentes, toda persona que se suponga o crea que sea un leproso, y será el deber de dichos funcionarios prestar auxilio para la conducción de cualquier persona arrestada de este modo al lugar que el Director de Sanidad o su agente exija, con el objeto de poder sujetar a dicha persona a una inspección médica, y a cualquier otro procedimiento que sea necesario para demostrar la diagnosis, y después prestar auxilio para el traslado de dicha persona a un lugar para su detención, asistencia, aislamiento o separación, si así lo exigieren el Director de Sanidad o sus agentes: *Entendiéndose*, Que se prestará una cuidadosa consideración a todas las protestas y solicitudes, y si la diagnosis es puesta en duda, ninguna persona será trasladada permanentemente a la colonia de leprosos de Culión u otro lugar de separación o detención hasta que la diagnosis de lepra haya sido confirmada mediante sistemas bacteriológicos. Siempre que la detención, asistencia, aislamiento o separación de leprosos envuelve la seguridad de bienes y dinero pertenecientes o de la propiedad de dichos leprosos, el tesorero provincial o la persona que éste designe actuará como administrador, hasta que se nombre un administrador por el Juzgado de Primera Instancia que tenga jurisdicción en la provincia en que resida dicha persona.

"ART. 2. Cualquiera que a sabiendas detenga o albergue en locales que estén bajo su *control*, o que de alguna manera oculte o ayude a ocultar a cualquier persona que padezca de lepra, con el objeto de que no se descubra a dicha persona y se entregue al Director de Sanidad o sus agentes, o que sostenga o ayude a sostener a cualquier leproso que viva oculto, será castigado, una vez convicto, como más adelante se dispone en la presente.

"ART. 3. Será deber de todo policía o agente de orden público que tenga motivos para creer que alguna persona dentro de su distrito padece de lepra, dar cuenta inmediatamente del hecho al jefe de sanidad del distrito en que ocurra el caso. Cualquier policía o agente de orden público que voluntariamente deje de cumplir las disposiciones de este artículo, será castigado una vez convicto, como mas adelante se dispone en la presente.

"ART. 4. El Director de Sanidad queda autorizado para hacer establecer hospitales y campos de detención en aquellos lugares que sean necesarios y puede ordenar en aquellos hospitales y campos de detención que se establezca, la asistencia de leprosos en el primer período con el objeto de intentar su cura, y puede poner en libertad a aquellos enfermos que considere curados o libres de lepra, y enviar a un lugar de separación y aislamiento a todos los enfermos que consideren incurables o que puedan propagar la enfermedad de la lepra. El Director de Sanidad puede permitir a cualquier médico debidamente habilitado y de reputación el dedicarse a la asistencia de leprosos o de cualquier persona que se suponga que padece de lepra: *Entendiéndose*, Que dicha asistencia será bajo las condiciones y reglas que prescriba el Director de Sanidad. El Director de Sanidad o sus agentes pueden exigir a los enfermos la cantidad de trabajo razonable que recomiende el médico de su asistencia y el Director de Sanidad puede además dictar y publicar las reglas y reglamentos que considere convenientes para la mejora del estado de los leprosos.

"ART. 5. Los auxiliares voluntarios o amigos que vivan con los leprosos separados de conformidad con las órdenes del Director de Sanidad o sus agentes estarán bajo el *control* del Director de Sanidad durante un tiempo razonable y pueden ser aislados de los que están libres de la enfermedad.

"ART. 6. Cualquier persona que infrinja algún artículo de esta Ley o parte del mismo, será castigada, una vez convicta, con una multa que no exceda de doscientos pesos o prisión que no pase de seis meses, o con ambas penas a discreción del tribunal.

"ART. 7. Exigiendo el bien público el pronto establecimiento de esta Ley, por la presente se dispone su aprobación inmediata, de acuerdo con el artículo segundo de la 'Ley prescribiendo el orden de procedimientos por la Comisión para decretar leyes,' aprobada en veintiséis de Septiembre de mil novecientos.

"ART. 8. Esta Ley tendrá efecto en cuanto sea aprobada.

"Aprobada, 12 de Septiembre de 1907."

La práctica de hacer un cuidadoso reconocimiento microscópico en cada caso ha sido seguida con fidelidad, y no hay duda que es en gran manera responsable de la confianza que depositan en los diagnósticos hechos por los funcionarios médicos de esta Oficina.

La actitud del pueblo de las Islas en general hacia la segregación ha sido muy halagüeña. Tal vez no haya país en que los lazos de familia sean tan estrechos como en las Islas Filipinas. A pesar del hecho de que ha sido necesario el separar el esposo de la esposa, la madre del hijo, el hermano de la hermana, el amigo del amigo, se han resignado a su suerte y además con frecuencia ayudaron a los representantes de la ley cuyo deber era el llevar a cabo la segregación, en cuanto se les explicaba que tal procedimiento era necesario para el bien de los más. Con excepción de algunos casos aislados, la recogida de los leprosos ha sido llevada a cabo sin ninguna oposición marcada o tumulto. El único accidente serio es el que ocurrió en Malitbog, Leyte, en cuyo lugar dos leprosos armaron una riña como resultado de la cual uno de ellos salió herido mortalmente. Sin embargo, riñas de esta clase no ocurren solamente entre los leprosos y apenas puede decirse que haya tenido relación con la cuestión de la segregación.

Una frecuente experiencia tal vez digna de mencionar es la práctica de muchos municipios de presentar a sus dementes, ciegos, inválidos y otros incurables que han llegado a ser una carga pública para su traslado a Culión. Naturalmente que estos no podían ser cuidados en una leprosería, pero con frecuencia demostraban mucha sorpresa porque no nos los llevábamos.

Las Provincias de Mindoro, Masbate, Romblón, Cápiz, Iloílo, Antique, Negros Oriental y Occidental, Sámar y Leyte han sido ya recorridas dos o tres veces, y con excepción de unos cuantos casos aislados puede decirse que están libres de leprosos. Las provincias de Cebú, Bohol, Ambos Camarines, Albay, Batangas, Tayabas, Sorsogón, Benguet, Lepanto-Bontoc e Ilocos Sur, han sido limpiados una vez, pero todavía no se les considera libres de leprosos, así es que tendrán necesidad de una o dos limpias más para más tarde.

La Legislatura actual ha votado amplios créditos para la continuación de los trabajos durante el próximo año fiscal según la norma trazada por la Comisión durante el año que acaba de finalizar.

En la colonia propiamente se ha hecho ya mucho, pero creemos que todavía no ha comenzado a asumir la apariencia que esperamos que tendrá en cuanto se hayan terminado las mejoras permanentes. La idea constante ha sido el habilitar la colonia por lo menos temporalmente, y hacerla habitable tan pronto como sea posible para el número total de leprosos de las Islas, de manera que las oportunidades para contraer la enfermedad sean reducidas a los límites más estrechos y esta sangría a los recursos del país se disminuya tan pronto como sea posible. Este plan también tiene la ventaja de tener a la Oficina informada del número aproximado de leprosos que tendrán que ser cuidados en Culión durante los próximos años, haciendo así posible el determinar la extensión y naturaleza de las mejoras permanentes que se han de hacer.,

La Oficina de Sanidad no solamente provee toda la asistencia facultativa o atenciones necesarias, sino que también ha estado llevando a cabo obras de construcción. En las obras de construcción en Filipinas, aún bajo la supervisión directa de una Oficina del Gobierno creada para ese objeto, se encuentran muchas dificultades, como la falta de brazos, personal técnico, dificultad en obtener provisiones, lluvias torrenciales, y otros muchos obstáculos; pero esto es una insignificancia si se compara con una isla de leprosos, al que solamente visita un vapor una vez al mes y en donde los obreros van con miedo y horror, desertando muchas veces en masa, y donde apenas se pueden obtener capataces amaestrados. Es por este motivo porque debe otorgarse crédito especial a los médicos y otros funcionarios relacionados con la Oficina de Sanidad por los resultados que han sido obtenidos. Los trabajos de construcción hechos en Culión pueden compararse favorablemente, por su costo y por su naturaleza, con los hechos en otras partes.

Se ha terminado una bodega de cemento reforzado; un hospital de 100 camas del mismo material está actualmente en curso de construcción. Los trabajos del hospital están retrasados por la dificultad en obtener trabajadores a causa del miedo y horror a la enfermedad.

Hasta ahora no hemos encontrado practicable dar a los leprosos otro trabajo que el necesario para sus propias conveniencias domésticas. Se ha adoptado esta conducta en deferencia a su estado físico y en respeto a su disposición innata en vivir con holganza, una costumbre que después de todo no es tan mala en los leprosos.

La mortalidad en la colonia todavía permanece alta, pero creemos que es materialmente más baja que lo que hubiera sido si hubiéramos dejado a dicha gente en sus casas, porque muchos de ellos eran mendigos, dependiendo por completo de la caridad pública para su sustento. La gran mayoría de los casos estaban tan avanzados cuando fueron recibidos en la colonia que estaban fuera de todo auxilio humano. Los que llegaron en bastante buen estado ganaron en peso y en fuerzas, y al parecer están más contentos, más robustos, y más satisfechos que cuando estaban en su provincia. El trabajo del personal del hospital ha sido muy penoso y desagradable, debido a la abundancia de úlceras gangrenadas entre los recién recibidos, exigiendo el tratamiento de un solo enfermo con frecuencia más tiempo que una operación quirúrgica mayor. Tan pronto como el hospital que está actualmente en curso de construcción se termine, la cuestión del tratamiento quedará muy simplificado por las mayores facilidades y condiciones más favorables que habrá.

Se demuestra progresos en el informe de 1909 del cual extractamos lo siguiente:

Una ojeada a los trabajos del año con respecto a esta enfermedad demuestra que se ha hecho un progreso muy satisfactorio y que todas nuestras esperanzas han sido más que realizadas. Fueron trasladados a Culión un total de 1,318 leprosos y todas las provincias de las Filipinas, con excepción de Nueva Écija y la Mora han tenido por lo menos una limpia de leprosos. La incidencia de la enfermedad ha disminuído aparentemente de 1 leproso por cada 2,000 habitantes a 1 leproso por cada 2,800 habitantes. Al final del año fiscal anterior se calculaba el número total de leprosos en 2,708; este año es de 2,273. La tarea más ardua del oficial de sanidad de distrito con el objeto de llevar este trabajo a un feliz término todavía continúa, sin embargo, y es la de perseverar con paciencia, aunque con firmeza y constancia, buscando los casos incipientes de la enfermedad para trasladarlos a Culión. Según los actuales conocimientos, la ejecución de esta política nos ofrece la única esperanza de poder suprimir finalmente esta repugnante enfermedad de las Filipinas.

Desde que los trabajos para la segregación de los leprosos comenzaron de una manera sistemática en 1906, hubo 3,990 recogidos hasta el final del año económico de 1908–1909. Los trabajos han sido llevados a cabo casi sin ningún rozamiento, ni tampoco nadie ha creído en la necesidad de acudir a los medios legales para escapar a la segregación. La manera apacible como la mayor parte de los leprosos y sus amigos se allanaron cuando les llegó el turno para ser trasladados a Culión ha sido la prueba más evidente de la mansedumbre del pueblo de las Filipinas, y es un ejemplo de cómo una importante medida de higiene pública puede ser llevada a cabo cuando cuenta con el apoyo de la opinión pública y se le ejerce de una manera que demuestra la debida consideración a los derechos individuales.

Había en Culión a fines del año económico 1,741 leprosos más 185 en camino que hacen un total de 1,926. Parece haber mejor disposición ahora en los colonos como nunca hubo. Demuestran una actividad, un interés y una alegría en el cultivo de jardines y en el establecimiento de barrios o pequeñas agrupaciones de casas construídas a cierta distancia de la colonia para ellos mismos.

Cierto número de causas es indudablemente responsable de esto. La gran mayoría de los casos avanzados que llegaron a la colonia en estado desesperado han fallecido, y en consecuencia, la mortalidad ha llegado a ser desde entonces relativamente baja. La gran mejoría que han experimentado ciertos casos con el empleo de los rayos X y más especialmente con el uso de aceite de chaulmugra crudo, según recomienda el Profesor Dyer, de Nueva Orleans, ha levantado mucho las esperanzas. Los ofrecimientos del Gobierno para facilitarles animales de tiro y aperos agrícolas son aceptados en muchos casos.

Nuestros conocimientos de la lepra han progresado considerablemente durante el año por el descubrimiento hecho por Mr. Moses T. Clegg, de la Oficina de Ciencias, de un método para cultivar el bacilo de la lepra en medios artificiales. Creemos que esta es la primera ocasión en que ha habido una oportunidad para estudiar dicho organismo satisfactoriamente, y tenemos ahora por lo menos alguna esperanza de que se fabricará un suero o vacuna que pueda ser usado con éxito para combatir esta repugnante enfermedad, aborrecida desde los tiempos bíblicos.

El informe de la Oficina de Sanidad para 1910, bajo el título de "Lepra y su Tratamiento," manifestaba que:

Se han hecho verdaderos progresos durante el año pasado en el problema de la lepra. Puede decirse con seguridad que está más próximo a su solución que en cualquier otra época desde la introducción de la enfermedad. Si la Oficina no tuviera otras cosas que demostrar para los créditos votados para su mantenimiento, sólo esta hoja de servicios bastaría para justificar su existencia. Con excepción de los leprosos de la Provincia Mora y algunos cuantos casos aislados aquí y allá, todos los leprosos de las Filipinas están actualmente segregados. La consecución de esto ha sido una tarea de grandes proporciones, y exigía mucho valor y una entereza de propósito del grado más elevado. Los empleados de esta Oficina y cuantos otros ayudaron a estos trabajos hicieron un gran servicio a la humanidad.

De los leprosos que fueron segregados durante este año muchos de ellos se hallaban en las primeras etapas de la enfermedad y en muchos casos no eran aparentes ningunas manifestaciones exteriores, mientras que en las recogidas de los años anteriores, la mayor parte de los casos eran avanzados y con frecuencia repugnantes y desahuciados, muchos de ellos tan débiles que fallecían antes de llegar a su destino.

La recolección de los leprosos tuvo el resultado directo de devolver varios centenares de desgraciados a la sociedad de la que eran unos parias en las comunidades en que vivían. Tras de un debido reconocimiento facultativo se vió que no eran leprosos, y en muchos casos fué posible facilitarles tratamiento facultativo que resultó en su completa curación.

En el informe anual del año pasado se hizo mención de que Mr. Moses T. Clegg, de la Oficina de Ciencias había tenido éxito en cultivar el bacilo de la lepra. Durante este año ha tenido aún mayor éxito, y el Comandante Eugene R. Whitmore, del Cuerpo de Sanidad del Ejército de los Estados Unidos, está actualmente ocupado en encontrar una vacuna que se espera tenga eficacia en el tratamiento de la lepra.

Tratamiento.—Como siempre ha ocurrido en otros años, se han presentado muchas curas de la lepra en varias partes del mundo. Cada uno de dichos tratamientos ha sido probado tan pronto como se le podía obtener y encontrábamos leprosos que se presentaran voluntariamente a experimentarlo.

Se dió un prueba completa al procedimiento de Nastin, mas con resultados negativos. La decocción preparada del árbol del mangle, que recibió mucha publicidad en la prensa con motivo de ciertas curas supuestas en Cuba, nos resultó un fracaso. Ciertos polvos que se dijo que habían dado resultados muy notables en un caso de lepra en Camden, New Jersey, fueron experimentados aquí sin ningún beneficio apreciable. Los resultados de un tratamiento con una vacuna preparada con bacilos de la lepra cultivados según el método de Clegg tampoco han sido halagüeños. Como sin embargo, prometen mucho las ulteriores investigaciones sobre este asunto, se continuará con las mismas.

Los dos métodos usados en las Islas Filipinas, que han dado benéficos resultados en ciertas formas de la lepra son los rayos X y el aceite de chaulmugra. No ha habido ningunas curas positivas durante el año por los rayos X, pero obtuvimos la desaparición de todas las manifestaciones exteriores en muchos de los enfermos. El aceite de chaulmugra ha dado los resultados más satisfactorios. Se le ha usado en bastante número de casos tanto en Culión como en el Hospital de San Lázaro en Manila. En Culión tenemos dos casos de lepra en quienes todos los signos de la enfermedad han desaparecido aunque todavía se pueden encontrar los microbios de la lepra en las escarificaciones debidamente preparadas del septo de la nariz.

En el Hospital de San Lázaro hay cinco casos que han demostrado palpable mejoría y uno de ellos está aparentemente curado.

Desde la inauguración del proyecto de segregar a todos los leprosos de las Islas Filipinas, se han hecho traslados a Culión de la manera que sigue:

1906	Segundo trimestre	365
	Tercer trimestre	132
	Cuarto trimestre	305
1907	Primer trimestre	1
	Segundo trimestre	310
	Tercer trimestre	221
	Cuarto trimestre	158
1908	Primer trimestre	1,025
	Segundo trimestre	150
	Tercer trimestre	257
	Cuarto trimestre	171
1909	Primer trimestre	396
	Segundo trimestre	499
	Tercer trimestre	198
	Cuarto trimestre	285
1910	Primer trimestre	122
	Segundo trimestre	180
	Tercer trimestre	229
	Cuarto trimestre	399
1911	Primer trimestre	173
	Segundo trimestre	268
	Tercer trimestre	0
	Cuarto trimestre	448
1912	Primer trimestre	131
	Segundo trimestre	276
	Tercer trimestre	261
	Cuarto trimestre	297
1913	Primer trimestre	259
	Segundo trimestre	254
	Tercer trimestre	204
	Cuarto trimestre	78
	Total	8,052

La isla de Cebú, que tiene aproximadamente un décimo de la población de Filipinas, ha proporcionado casi la mitad del número total de leprosos. Esta isla es una de las más densamente pobladas de las Filipinas y esta grande proporción de infección leprosa indica que la enfermedad es más fácilmente contraída en comunidades densamente pobladas.

EL TRATAMIENTO CON EL ACEITE DE CHAULMUGRA.

En vista de las muchas solicitudes que se han venido recibiendo pidiendo detalles del tratamiento de la lepra con el aceite de chaulmugra según lo usa el Profesor Dyer, de Nueva Orleans, damos el siguiente resumen de su método:

1. Dieta completa, indicándose solamente la restricción de alimentos indigestos. La enfermedad no parece ser de ninguna manera afectada por el pescado ni ningún otro artículo de dieta.
2. Los baños son esenciales en el tratamiento; baños calientes con o sin sosa, dos veces al día, son eficaces.

3. El enfermo necesita tónicos y febrífugos, y se le debe observar por otras enfermedades o por complicaciones, como la infección palúdica, pleuresía, pneumonia, gripe y otras parecidas.

4. La estricnina es un *sine qua non* para el tratamiento de la lepra. Mis ayudantes y yo tenemos por regla que un enfermo tome siempre estricnina—la forma y manera de la dosificación dependerá del enfermo.

5. Cuando se administre el aceite de chaulmugra, se le tolera mejor antes que después de las comidas. Se le toma mejor en cápsulas, en leche caliente o en leche de magnesia. Debe comenzarse por dosis pequeñas, unas 3 gotas, que deberán aumentarse cada dos o tres días hasta que se puedan tomar de 120 a 150 gotas en una sola dosis.

6. Sobre todo obsérvese individualmente al enfermo. Aguárdese su mejoría, y si esta no se presenta en tres meses, espérese seis meses, si no se presenta en seis meses, espérese un año o más. Sígase con el tratamiento hasta que el enfermo fallezca o se ponga bueno. Tengo registrado un enfermo que por dos años no dió muestras de ninguna mejoría pero que ahora se halla bueno.

7. Cuando hayan desaparecido todos los indicios de la enfermedad, insístase en continuar el tratamiento. Puede que no sea necesario, pero es más seguro.

TRATAMIENTO DE LOS RAYOS X.

El tratamiento de la lepra con los rayos X lo comenzó el Dr. H. B. Wilkinson en el Hospital de San Lázaro en Enero de 1904. Los aparatos usados fueron una máquina con chispa de 10 pulgadas, hecha por Watson & Sons, 313 High Holborn, Londres, con una variedad de tubos facilitados por la misma casa. El tubo bifocal enrarecido para una chispa de 10 pulgadas fué la que dió mejores resultados.

En el tratamiento de los casos se escogía siempre la parte del cuerpo que presentaba la mayor cantidad de depósitos leprosos, la cual se exponía ordinariamente por diez minutos a los rayos a una distancia de 7 a 10 pulgadas. La distancia y el tiempo de exposición eran variados un poco de cuando en cuando hasta aproximarse casi al punto de quemar la piel si era posible, sin hacer daño. En solamente dos casos quedó la piel verdaderamente quemada, y es interesante notar que fueron los dos primeros casos que aquí se participan como curados. Durante el tratamiento el enfermo nunca padece, y apenas puede notar un ligero hormigueo en el área tratada, como si una ligera brisa soplase sobre la piel. Después de dos o tres tratamientos sucesivos puede notarse o no un ligero enrojecimiento de la piel, y el enfermo ordinariamente experimenta una sensación de picor. Si ocurren quemaduras superficiales, debe suspenderse por algún tiempo el tratamiento hasta que comienze la reparación de los tejidos. Estas quemaduras han demostrado poca tendencia a desarrollarse y se curan rápidamente dejando un poco de cicatriz o nada.

Durante la vida de la leprosería, Culión ha tenido tres jefes de división al cargo. El primero fué el Dr. C. F. de Mey, quien sirvió desde el Febrero de 1903 hasta el 15 de Enero de 1907, cuando dimitió y fué relevado por el Dr. James H. Biggar quien asumió cargo en Enero de 1907. A la dimisión del Dr. Biggar en Abril de 1910, se llenó la vacante con la designación del Dr. Paul Clements, médico inspector de la Oficina de Sanidad, quien hasta ahora continúa en el cargo. El Dr. John E. Snodgrass estuvo interinando de jefe desde Octubre de 1911 hasta Julio de 1912 durante la ausencia del Dr. Clements en vacaciones.

Cada uno de estos médicos han contribuído con su parte al éxito de la colonia.

Además del jefe funcionario médico, que se conoce por el jefe de la división, hay otro médico de cabecera. Este es el que está en más grande peligro de infección.

De todas las reclamaciones que se han recibido de los leprosos, no ha habido ni una protesta contra la administración o el trato individual. Cuando primeramente ingresan en la colonia se sublevan contra las restricciones necesarias y con frecuencia se quejan de minucias, pero esta costumbre va disminuyendo y es hoy más aparente un sentimiento general de resignación a los decretos del destino.

Otra causa de quejas es el hecho de que son muy optimistas en cuanto al tratamiento. Desean probar todos los remedios de que ellos o sus amigos tienen noticia o tienen imaginación bastante para inventar, y si no mejoran, creen llegado el tiempo de formular una queja basada en principios generales. Los enfermos de la lepra no son unos individuos desahuciados y desesperados como generalmente se les cree. Ansian una cura y toman activo interés en los asuntos de la vida. Culión naturalmente les parece triste hasta que traban nuevas amistades y llegan a interesarse en el nuevo orden de cosas.

Se hace todo lo posible para mitigar la triste situación de estos desgraciados. Los padecimientos físicos de los leprosos no son tan grandes como los dolores e incomodidades de otras enfermedades, pero el mero hecho de su reclusión en la colonia, que ordinariamente equivale a una sentencia de cadena perpetua, la separación de su casa y de sus amigos, el llevar una nueva vida por decirlo, es suficiente para echar un manto de tristeza sobre su temperamento naturalmente bien dispuesto.

La colonia ha estado en completo funcionamiento desde el 1906 y se están haciendo mejoras en ella cada año. La sistematización ha sustituído al caos y la satisfacción ha trocado en gran parte al descontento.

En el informe para el año económico que terminó el 30 de Junio de 1913 se declaraba lo siguiente:

Desde que se comenzaron los trabajos para el aislamiento de los leprosos en las Islas Filipinas de una manera sistemática en 1906, se han recogido 7,546 hasta el final del presente año económico. Según progresan los trabajos hay menores rozamientos que al principio. De hecho muchos casos se presentan ahora voluntariamente y piden ser trasladados a la leprosería de Culión. La manera jovial con que la gran mayoría de los leprosos han aceptado su traslado a Culión es una de las pruebas más satisfactorias de la manera cómo puede llevarse bien a cabo una medida de sanidad pública cuando está sostenida por la opinión pública y se lleva a cabo de con debida consideración a los derechos individuales. El mejor servicio de policía que ahora existe en muchas de las provincias ha descubierto muchos leprosos cuya existencia no era hasta ahora sospechada. Durante este año muchos leprosos se han escapado otra vez de la policía municipal mientras esperaban su traslado a Culión. En vista de lo anterior, es aparente que todavía existen actualmente muchos centros de infección, de modo que la rápida disminución del número de los casos de lepra en que se confiaba tanto hace pocos años no puede ahora esperarse.

Como ya se participó anteriormente, Cebú, a pesar del hecho que solamente tiene una décima parte de la población de Filipinas, todavía continúa proporcionando la mitad del número de los leprosos. Las averiguaciones hechas recientemente por el oficial de sanidad de Distrito Pond demuestran que ello puede ser debido al hecho de haberse establecido un hospital de leprosos en Cebú en 1816 y que los leprosos de todas las Visayas fueron enviados allí para ser cuidados. No mantenían, sin embargo, una custodia eficaz, por lo que sucedía con frecuencia que partidas enteras de leprosos se fugaban al mismo tiempo para establecerse en los pueblos cercanos. Por ejemplo, Opón, que fué uno de los pueblos en donde se recogieron más leprosos, fué con toda probabilidad uno de los puntos en donde aquéllos se refugiaron. El barrio de Córdoba, que aunque solo tiene una población de 5,000, ha dado más de 275 leprosos, parece confirmar esta suposición. El gran número de leprosos encontrados allí puede haber sido debido al hecho de los continuos casamientos entre ellos. Lo que antecede puede ser que explique en cierto modo la mayor incidencia de la lepra en la isla de Cebú que en otras partes. Esto, sin embargo, no contando con el hecho de que probablemente haya ocurrido otro tanto de lo mismo con respecto a las colonias de leprosos establecidas en Palestina en Ambos Camarines y en el Hospital de San Lázaro en Manila.

Durante el año pasado se hizo mucho para aliviar la soledad y monotonía de la vida en Culión. Durante las festividades de Pascua, el Secretario de lo Interior y el Director de Sanidad llevaron a Culión una máquina cinematográfica y dieron a los leprosos una sesión por la noche. De los fondos caritativamente donados por el público de Manila para cierto número de instrumentos musicales para sustituir a los inservibles, se compró un equipo de *baseball*, juegos, etc. Está ahora casi terminado un edificio para teatro en donde nos proponemos dar sesiones fonográficas así como cinematográficas de cuando en cuando.

Se ha continuado sin interrupción la construcción de casas de cemento reforzado en Culión, comenzándose también activamente el embellecimiento de los alrededores. Se inaugurará dentro de poco en Culión un gran almacén cooperativo, con monedas propias, el cual funcionará exclusivamente bajo empleados leprosos. Se propone comprar en este establecimiento cualquier cosa que los leprosos produzcan y que la colonia pueda usar, y en cambio vender a los leprosos cuantas pequeñas comodidades y útiles deseen comprar a un precio razonable. Creemos que de esta manera será posible estimular a los leprosos que hagan algo para su propio mantenimiento. No creemos que el trabajo obligatorio, aún si se exige únicamente de los que están físicamente capacitados, dé nunca resultados satisfactorios, porque después de todo el leproso es un enfermo, la mayor parte del tiempo padece de fiebre, y no tendría inclinación a hacer ningún trabajo si se le obligara.

Los sacrificios y trabajos hechos por las hermanas de San Pablo de Chartres todavía continúan haciendo la vida del leproso en general más soportable. Para dar una idea de la gran cantidad de trabajo hecho por ellas, necesitamos solamente decir que en el servicio de visitantes, las hermanas vendan más de 400 llagas de leprosos cada mañana.

TRATAMIENTO DE LA LEPRA.

La Oficina todavía continúa con la norma de probar cualquier remedio que alguno sugiera para el tratamiento de la lepra que dé alguna esperanza de proporcionar alivio. Un tratamiento que ha dado muchas esperanzas durante los últimos pocos años se describe con más o menos detalles con la historia de los dos siguientes casos que resultaron negativos de la lepra por más de dos años y han sido dados de alta como probatorios.

El 11 de Junio fueron dadas de alta en el Hospital de San Lázaro dos personas que habían estado padeciendo de lepra y fueron declaradas libres de la enfermedad.

C. A., filipino, de 27 años, fué admitido en la leprosería de San Lázaro el 29 de Mayo de 1909. El caso, al ser admitido, presentaba gruesas manchas rojizas en la naríz y tumefacción y decoloración del lóbulo de la oreja derecha. Los cristales tomados de las lesiones revelaron el bacilo de la lepra. A partir de Agosto 1909 recibió el tratamiento de la vacuna a intérvalos durante un año sin que se notara ningún cambio aparente en su estado. De Septiembre a Noviembre de 1910 se le administró el aceite crudo de chaulmugra por la boca, comenzando por una dosis de 15 gotas diarias que en Noviembre llegaron hasta 60 gotas. Se le dió el aceite tres veces al día en dosis fraccionadas. Desde el mes de Noviembre recibió también inyecciones hipodérmicas según la siguiente fórmula del Dr. Mercado, médico residente del Hospital de San Lázaro:

Aceite de chaulmugra	cc....	60
Aceite alcanforado	cc....	60
Resorcina	gramos....	4

Mézclese y disuélvase por el calor en baño-maría y fíltrese después.

Esta composición se administró como sigue: Durante Noviembre, 2 cc. cada tres días; durante Diciembre, 5 cc. cada ocho días; durante Enero, 10 cc. cada ocho días.

Como esta excesiva dosis era mal tolerada, se redujo a 5 cc., en cuya cantidad se practicaron inyecciones desde Febrero a Mayo. No se notó ningún cambio al parecer en su estado después del año de tratamiento por la vacuna. Durante el tratamiento con aceite crudo de chaulmugra por la boca experimentó alguna mejoría. Ésta continuó durante el tiempo en que le administraron las inyecciones hipodérmicas, tanto que el 6 de Mayo de 1911 todas las lesiones que se han descrito habían desaparecido y no se podía encontrar el bacilo de la lepra. Se suspendió todo tratamiento por un año durante el cual permaneció negativo por el microscopio. Desde Agosto de 1912 hasta Junio de 1913 se le administró 2 cc. cada diez o trece días hasta la fecha en que fué dado de alta.

El segundo caso fué el de C. A., una mujer filipina, de 22 años, admitida en San Lázaro el 7 de Enero de 1910. Tenía toda la cara encendida con maculillas rojas en las mejillas, la frente y la barba. Las escarificaciones tomadas de estas lesiones resultaron positivas del bacilo de la lepra. Se comenzó el tratamiento con la vacuna el 15 de Enero, continuando por un período de cinco meses. Al final del primer mes, como no se notaba ninguna mejoría aparente en su estado, se le administró el aceite crudo de chaulmugra por ingestión en dosis ascendentes. La dosis inicial de 30 gotas al día llegó a 300 gotas al cabo de cuatro meses. Pasado este tiempo demostró alguna mejoría pero como ya no podía soportar bien el aceite, se le administró la fórmula mencionada en el caso anterior. Durante el primer mes se le inyectaron en las nalgas 1 cc. cada ocho días. Al mes siguiente 10 cc. cada cuatro días. Después se le dió una dosis de 15 cc. y se le siguió inyectando 15 cc. cada seis días. Por Marzo de 1911 ya se notó una gran mejoría en su estado general y era negativa del bacilo de la lepra. Desde Septiembre de 1911 se suspendió todo tratamiento por un año. Desde Junio de 1912 se le inyectaron 2 cc. cada ocho días. Los reconocimientos bacteriológicos hechos con relativa frecuencia dieron siempre resultados negativos. El 11 de Junio, fecha de su alta, tenía la cara todavía un poco encendida.

No sabemos si el tratamiento de la vacuna ha tenido alguna influencia en estas curaciones. Podemos decir, sin embargo, que hay muchos otros casos en el Hospital de San Lázaro y en la leprosería de Culión que han dado resultados negativos durante dos años aunque presentan lesiones más marcadas que los que ya han sido dados de alta, y que sólo han tomado el aceite de chaulmugra sin empleo de ninguna vacuna.

De cuando en cuando han venido participándose curas aparentes en el Hospital de San Lázaro, pero desgraciadamente todos recayeron o fallecieron de alguna otra enfermedad poco después de un año en que permanecieron negativos. Los casos que ahora existen han permanecido negativos por el período de dos años, y creemos tener fundadas esperanzas en que los resultados han de ser más permanentes.

Tan pronto como llegó a esparcirse la noticia de estos resultados favorables entre los leprosos, hubo una gran demanda para un tratamiento análogo, y hay en la actualidad centenares de ellos que están tomando el aceite de chaulmugra ya en una u otra forma.

Debido al largo tiempo que se necesita estar tomando el aceite y a sus efectos nauseabundos cuando se le ingiere, nuestra experiencia ha demostrado que muy pocos tienen la suficiente resistencia para tolerar el tratamiento por mucho tiempo.

Hasta este momento los resultados no han sido tales que garanticen la creencia de que se haya hallado un específico contra la lepra, pero somos de opinión que si pone disponible una cantidad adecuada para la instalación de un laboratorio con un hospital anexo provisto de todos los medios para el estudio de este tratamiento contra la lepra, tal vez hayamos hallado un camino que nos conduzca al éxito. Al objeto de que no se abriguen grandes esperanzas con las presentes curaciones debe tenerse presente que en la experiencia de este Buró un leproso parece haberse curado espontáneamente, esto es, sin ningún tratamiento; que tenemos en la actualidad veinte enfermos que han estado bajo el tratamiento descrito por más de un año y que sólo unos pocos de ellos han presentado indicios de mejoría.

El último informe del jefe de la leproseria de Culión manifestaba que quedaban en la colonia el 31 de Diciembre de 1913 3,298 leprosos. Sustrayendo este número de 8,502 que es el número total de los admitidos en la colonia, hay una diferencia de 5,204, todos los cuales han fallecido con excepción de unos cuantos casos aislados que se fugaron o han sido devueltos a su pueblo natal.

La leprosería de Culión en su funcionamiento es prácticamente autónomo. El jefe de la división o de la colonia es el juez de paz *ex oficio* y dirime todas las contiendas que no caen bajo la jurisdicción de tribunales más elevados. Los colonos preparan por sí mismos sus reglas de conducta, observando naturalmente el debido respeto a las autoridades debidamente constituídas y a sus facultades oficiales.

Tienen un sistema monetario propio hecho de aluminio y redimible en moneda legal de las Islas. La primera remesa representaba ₱8,000 en pequeñas monedas de varias denominaciones.

La leprosería de Culión debe tener una carrera próspera y útil en el porvenir, pues en tanto que haya un solo caso de lepra en las Islas, la debida consideración al enfermo y la seguridad de los demás impondrán que el leproso sea aislado bajo una supervisión bondadosa y desinteresada.

MALARIA.

La campaña educativa que se ha venido haciendo por medio de la prensa con respecto a la fiebre malárica ha resultado en la difusión de muchos conocimientos entre las masas y hay indicios en todas partes de que el pueblo está despertando al hecho de que es una enfermedad evitable. Se hizo gran hincapié sobre este particular en las conferencias públicas que se dieron por los funcionarios médicos de esta Oficina en muchos de los municipios de las Islas Filipinas. Los arreglos que quedan mencionados en otro lugar para la venta de la quinina por más de 700 tesoreros municipales en todo el Archipiélago han sido también de muchísima utilidad en difundir conocimientos con respecto a dicha enfermedad.

Continúa registrándose bastante malaria en las haciendas azucareras de San José, en la Isla de Mindoro, lo cual es de gran importancia bajo el punto de vista de la higiene pública, porque los braceros que dejan el empleo introducen con frecuencia la enfermedad en otras islas y poblados en que no había estado presente hasta ahora.

Que la malaria sigue siendo un factor peligroso en la Colonia Penal de Iwahig, ha sido bien demostrado por varias experiencias durante el año pasado. Se recordará tal vez que la localidad de la colonia, aún antes de la ocupación americana tenía fama por su violenta infección malárica. Las medidas sanitarias que se introdujeron en 1906 demostraron, sin embargo, que era posible reducir la enfermedad a muy pequeña importancia si se observaban ciertas precauciones sencillas, las cuales consisten, en pocas palabras, en el desagüe, y si esto no es posible, la petrolización, el uso de mosquiteros y la administración profiláctica de la quinina. Con el cumplimiento de estos sencillos preceptos se llegó prácticamente a suprimir la enfermedad en el emplazamiento de la colonia, mas cuando los trabajadores fueron enviados a lugares cercanos a la misma, los cuales se estaban desbrozando para el cultivo, y dejaron de observar las reglas anteriores, la enfermedad se presentó en forma maligna en casi todas las ocasiones. Se hicieron repetidos encarecimientos para que se observaran dichas precauciones necesarias para evitar el peligro.

Los mejores medios de transporte de un punto a otro y la mayor capacidad del pueblo para ganar dinero son con toda probabilidad factores importantes en la propagación de la malaria en las Filipinas con mayor rapidez que antes.

Durante el año entrante, por medio de conferencias públicas, proyecciones de linterna, instrucción en las escuelas públicas, artículos en la prensa, y la difusión de conocimientos útiles por otros medios, esperamos que el público podrá estar mejor preparado para sufragar el costo de obras más extensas de desagüe y otras operaciones necesarias para la supresión de esta enfermedad.

PESTE.

No han ocurrido mas que dos casos de peste en el hombre durante el período que comprende este informe. Durante los primeros días de Septiembre se encontraron ratas infestadas de peste en la calle Chica 210, calle Peñarrubia 537, y calle Ribera 530. Estas fueron las primeras ratas apestadas que se descubrieron en toda la ciudad desde el 24 de Junio. No había habido ningún caso de peste en el hombre desde el 21 de Mayo. Se concentró inmediatamente toda la fuerza disponible de la Oficina de Sanidad en aplicar medidas contra las ratas en la vecindad de donde se descubrieron dichas ratas infestadas de peste. Estaban casi por terminar las medidas que se habían tomado en la zona que tenía a la calle Chica por su centro sin haber llegado todavía a la manzana en que está situada el "Stewart Building." Esta manzana se halla limitada por el río Pásig, la plaza de Goiti, la calle Echagüe y la calle Helios.

Mr. Wm. Crozier, director del Manila Bulletin, cuya oficina estaba en el "Stewart Building," se puso gravemente enfermo el 19 de Septiembre, y el día 20 del mismo su caso fué definitivamente diagnosticado de peste. Falleció el 23 de Septiembre en el Hospital de San Lázaro. El diagnóstico fué completamente confirmado por el laboratorio.

Mientras se tomaban medidas insecticidas, etc., contra la peste en su oficina, se encontró una rata momificada en uno de los cajones de su pupitre. También se encontraron varias pulgas vivas, una de las cuales cogida e identificada por la Oficina de Ciencias resultó ser la pulga de las ratas (*Pulex cheopis*). Cristales coloreados tomados de esta pulga dieron ver organismos bipolarmente coloreados idénticos a los de la peste. La rata momificada o ratón grande que se encontró en el pupitre se llevó a la Oficina de Ciencias, se le pulverizó, y las inoculaciones hechas en las ratas sanas del laboratorio produjeron en ellas casos típicos de la peste. Durante la inspección de la bodega del almacén de comestibles, la cocina del restaurant, y otras habitaciones situadas en el primer piso del edificio en que estaban instaladas las oficinas del Manila Daily Bulletin, se encontraron otras cuatro ratas más con todos los indicios de haber muerto de la peste.

También se supo que el 20 de Septiembre, un chino que estaba empleado en el almacén de comestibles falleció en poco tiempo siendo enseguida enterrado. Comprobándose los registros se averiguó que su defunción había sido certificada como debida a una tuberculosis pulmonar después de cuatro meses de enfermedad. Con motivo de circunstancias tan sospechosas, se exhumó el cadáver, con lo que se pudo averiguar definitivamente que no había fallecido de tuberculosis pulmonar. Tenía glándulas tumefactas, sin embargo, y otras lesiones, indicatorias de que la muerte pudiera haber sido debida a la peste, mas a causa del avanzado estado de descomposición en que se hallaba, fué imposible confirmar el diagnóstico biológicamente.

El segundo caso ocurrió en un depósito de maderas el 25 de Noviembre en la calle Echagüe No. 745. A pesar de todos los esfuerzos hechos para encontrar ratas apestadas, no se encontró ninguna en los reconocimientos del laboratorio, pero este caso en el hombre prueba que la infección todavía existía en el llamado "foco de Echagüe." El hecho de que la enfermedad se hubiera limitado a dos casos humanos a pesar de las esperanzas tan poco favorables, al menos al parecer, es una prueba concreta de la eficacia de las medidas sanitarias modernas. Se encontrarán más detalles respecto a la peste en una memoria que fué leída en

Noviembre pasado en la sesión celebrada por el *Far Eastern Association of Tropical Medicine* en Saigón, que será dentro de poco publicada en el *Journal of Science.*

FIEBRE TIFOIDEA.

Han llegado a observarse mas casos de una enfermedad muy parecida a la fiebre tífica. Uno de ellos ocurrió en la persona de un americano, R. L. W., calle Misericordia 1141, Santa Cruz, Manila. Se encontrará su historia clínica completa en el Hospital General de Filipinas. Se hizo el más detenido reconocimiento de la casa de dicho individuo por el entomólogo de la Oficina de Ciencias sin que fuera posible encontrar el *pediculus vestimenti.* El difunto, sin embargo, estaba empleado en las aduanas y muy bien pudiera haber contraído la enfermedad por su trato cercano con los recién llegados de países extranjeros.

RECOMENDACIONES.

1. Que se vote un presupuesto para la construcción de mas edificios para los dementes y proveer al mantenimiento de un número mucho mayor. Los recursos actuales son completamente inadecuados para atender a las necesidades de aún los casos más urgentes de demencia.
2. Que se aprueben leyes para un *control* más centralizado de la sanidad en provincias, con suficiente presupuesto para mejorar las condiciones higiénicas.
3. Que se aprueben leyes tendentes a disuadir que se consuma el arroz pulido entre los que lo usan como base principal de alimentación. La consecución de este objetivo resultará probablemente en la salvación de muchos miles de vidas adultas, y el ahorro de miles de casos de dicha enfermedad, con promesa de una gran reducción en la mortalidad infantil.
4. Que se construyan otros pabellones adicionales para el aislamiento de enfermedades comunicables peligrosas y una mejor cocina para los dementes del Hospital de San Lázaro.
5. Que se tomen medidas inmediatas para un mayor abastecimiento de aguas para la ciudad de Manila. La experiencia de los dos últimos años ha demostrado que la escasez de agua durante la temporada de secas constituye una grave amenaza para la salud de Manila. Este mayor abastecimiento de aguas debe ser suficientemente adecuado para suministrar agua a los pueblos del valle de Mariquina y otros cercanos a Manila en que se ha demostrado que no es factible la instalación de pozos artesianos.

6. Un presupuesto para el alojamiento de los alumnos enfermeros. El mayor número de alumnos que la Legislatura ha autorizado para la Escuela Práctica de Enfermeros de las Filipinas hace urgentemente necesario que tengamos más lugar donde alojarlos.

7. Que se den facultades legales para suprimir condiciones antihigiénicas en propiedades privadas, y que constituya el costo de ellas un gravamen sobre la finca.

8. Que se apruebe una ley haciendo obligatorio el bozal para los perros por varios años. La vigencia de una ley así y la reglamentación de los perros que llegan a Filipinas concluirán con la desaparición de la rabia, que actualmente es responsable de muchas muertes al año.

9. Otras recomendaciones con respecto a la necesidad de ulteriores investigaciones respecto a la causa del cólera y la lepra, la provisión de fondos para fines benéficos, y muchos otros asuntos, se encontrarán en el texto de este informe bajo los encabezamientos correspondientes.

Se somete respetuosamente.

VICTOR G. HEISER,
Cirujano del Servicio de Higiene Pública,
Director de Sanidad.

Al Honorable SECRETARIO DE LO INTERIOR,
Manila, I. F.

VITAL AND GENERAL STATISTICS FOR THE PHILIPPINE ISLANDS

SHORT FISCAL YEAR, JULY 1, 1913, TO DECEMBER 31, 1913

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GENERAL STATISTICS.

[Unless otherwise stated these statistics are for the half year ended **December 31, 1913.]**

POPULATION OF THE CITY OF MANILA FOR THE HALF YEAR 1913, GROWTH BASED ON THE INCREASE OF POPULATION FROM 1907 TO 1910.

BY NATIONALITIES.

Nationality.	Male.	Female.	Total.
Americans	3,192	1,220	4,412
Filipinos	118,565	105,358	223,923
Spaniards	1,426	1,071	2,497
Other Europeans	485	196	681
Chinese	14,473	422	14,895
All others	961	387	1,348
Total	139,102	108,654	247,756

BY DISTRICTS.

Health district.	Male.	Female.	Total.
No. 1, Intramuros	18,006	13,432	31,438
No. 2, Meisic	54,956	32,528	87,484
No. 4, Sampaloc	20,648	19,196	39,844
No. 5, Tondo	33,853	32,051	65,904
No. 6, Paco	11,639	11,447	23,086
Total	139,102	108,654	247,756

MARRIAGES.[a]

Nationality.	Total marriages.	Health district— No. 1.	No. 2.	No. 4.	No. 5.	No. 6.	Single males married— Single female.	Widowed female.	Divorced female.	Widowed males married— Single female.	Widowed female.	Divorced female.
Americans	30	19	3	5	2	1	22	5	3	----	----	----
Filipinos	974	94	405	117	314	44	798	72	----	67	37	----
Spaniards	----	----	----	----	----	----	----	----	----	----	----	----
Other Europeans	9	8	----	1	----	----	8	1	----	----	----	----
Chinese	34	4	22	1	6	1	28	2	----	4	----	----
All others	4	2	----	1	1	----	3	1	----	----	----	----
Total	1,051	127	430	125	323	46	859	81	3	71	37	----

Nationality.	Divorced males married— Single female.	Widowed female.	Divorced female.	Nationality of brides. Americans.	Filipinos.	Spaniards.	Other Europeans.	Chinese.	All others.	Relationship. Blood.	Affinity.
Americans	----	----	----	15	12	----	3	----	----	----	----
Filipinos	----	----	----	----	974	----	----	----	----	2	----
Spaniards	----	----	----	----	----	----	----	----	----	----	----
Other Europeans	----	----	----	1	2	1	5	----	----	----	----
Chinese	----	----	----	----	33	----	----	1	----	----	----
All others	----	----	----	----	4	----	----	----	----	----	----
Total	----	----	----	16	1,025	1	8	1	----	2	----

[a] Registration incomplete.

Average per 1,000 population, 16.84.

MARRIAGES BY AGES.[a]

Male.		Female.						
Age.	Number.	To 14 years.	To 20 years.	To 25 years.	To 30 years.	To 40 years.	To 50 years.	Over 50 years.
To 14 years								
To 20 years	304	1	266	34	2	1		
To 25 years	407		298	86	18	5		
To 30 years	148	1	72	40	21	12	2	
To 40 years	144		42	37	30	31	3	1
To 50 years	36		5	6	11	9	4	1
Over 50 years	12		1		3	4	4	
Total	1,051	2	684	203	85	62	13	2

[a] Registration incomplete.

BIRTHS REPORTED.[a]

Nationality.	Male.	Annual birth rate per 1,000.	Female.	Annual birth rate per 1,000.	Total.	Annual birth rate per 1,000.
Americans	50	31.09	60	97.62	110	49.49
Filipinos	2,330	39.00	2,108	39.71	4,438	39.34
Spaniards	18	25.05	16	29.65	34	27.02
Other Europeans	13	53.20	10	101.27	23	67.04
Chinese	58	7.95	50	235.19	108	14.39
All others	7	14.45	1	5.12	8	11.78
Total and average	2,476	35.33	2,245	41.01	4,721	37.82

[a] Registration incomplete.

BIRTHS, BY DISTRICTS.[a]

Health district.	Legitimate.			Illegitimate.			Grand total.	Annual birth rate per 1,000
	Male.	Female.	Total.	Male.	Female.	Total.		
No. 1, Intramuros	349	328	677	30	16	46	723	45.65
No. 2, Meisic	560	504	1,064	21	17	38	1,102	25.00
No. 4, Sampaloc	437	365	802	38	29	67	869	43.29
No. 5, Tondo	680	622	1,302	30	29	59	1,361	40.99
No. 6, Paco	316	325	641	15	10	25	666	57.26
Total	2,342	2,144	4,486	134	101	235	4,721	37.82

[a] Registration incomplete.

Attended by—	Living.	Stillborn.
Physician	967	79
Midwife	1,672	44
Family	2,082	109

BIRTHS, ACCORDING TO NUMBER OF CHILDREN BORNE BY MOTHER.

Births in the order in which the child was born, whether first child, second child, etc.	Living.		Total.	Stillborn.		Total.	Grand total.
	Male.	Female.		Male.	Female.		
First	531	527	1,058	42	21	63	1,121
Second	444	412	856	13	21	34	890
Third	387	306	693	21	12	33	726
Fourth	321	250	571	13	8	21	592
Fifth	197	224	421	12	8	20	441
Sixth	182	145	327	8	4	12	339
Seventh	140	118	258	7	5	12	270
Eighth	102	90	192	5	1	6	198
Ninth	69	51	120	2	4	6	126
Tenth	39	42	81	3	6	9	90
Eleventh	28	35	63	1		1	64
Twelfth	12	23	35	2	5	7	42
Thirteenth	8	10	18	3	1	4	22
Fourteenth	8	5	13	3	1	4	17
Fifteenth	2	4	6				6
Sixteenth	2	1	3				3
Seventeenth	2	2	4				4
Eighteenth	1		1				1
Nineteenth							
Twentieth							
Twenty-first							
Twenty-second							
Twenty-third							
Twenty-fourth	1		1				1
Total	2,476	2,245	4,721	135	97	232	4,953

DEATHS AND DEATH RATE PER 1,000 AMONG RESIDENTS, BY NATIONALITIES.

Nationality.	Male.	Annual death rate per 1,000.	Female.	Annual death rate per 1,000.	Total.	Annual death rate per 1,000.
Americans	17	10.57	6	9.76	23	10.34
Filipinos	1,556	26.05	1,382	26.03	2,938	26.04
Spaniards	15	20.88	9	16.68	24	19.07
Other Europeans	6	24.55	3	30.38	9	26.23
Chinese	107	14.67	7	32.92	114	15.19
All others	8	16.52	2	10.25	10	14.72
Total and average	1,709	24.38	1,409	25.74	3,118	24.98

CLASSIFIED REPORT OF ALL DEATHS OCCURRING IN MANILA, INCLUDING TRANSIENTS.

Social condition.	Male.	Female.
Married	511	322
Divorced		
Widowed	140	261
Single	262	77
Children	1,133	939
Condition not stated	26	7
Total	2,072	1,606
Grand total	3,678	

Stillbirths	245
Deaths with medical attendance	2,409
Deaths without medical attendance	1,269

DEATHS, BY AGES.

Age.	Resident.		Transient.		Total.
	Male.	Female.	Male.	Female.	
Under 30 days	237	206	20	11	474
30 days to under 1 year	475	403	108	86	1,072
1 year to under 2 years	110	88	16	13	227
2 years to 4 years	80	75	12	7	174
5 years to 9 years	41	37	4		82
10 years to 14 years	28	10	5	3	46
15 years to 19 years	56	22	14	3	95
20 years to 29 years	131	125	46	24	326
30 years to 39 years	138	107	53	21	319
40 years to 49 years	129	78	35	10	252
50 years to 59 years	105	54	24	8	191
60 years to 69 years	62	48	9	3	122
70 years to 79 years	61	56	9	4	130
80 years to 89 years	33	53		1	87
90 pears to 99 years	15	31	1		47
100 years and over	6	16			22
Age not stated	2		3	1	6
Total	1,709	1,409	359	195	[a]3,672

[a] Six bodies unidentifiable as to age and permanent residence, not included.

DEATHS, BY DISTRICTS, INCLUDING TRANSIENTS.

Health district.	Deaths.	Annual death rate per 1,000
No. 1, Intramuros	597	37.69
No. 2, Meisic	836	18.96
No. 4, Sampaloc	517	25.75
No. 5, Tondo	1,415	42.61
No. 6, Paco	313	26.91
Total and average	3,678	29.46

DEATHS, WITH CAUSES, OCCURRING AMONG RESIDENTS IN THE CITY OF MANILA (STILLBIRTHS NOT INCLUDED).

Causes of death.	Americans.		Filipinos.		Spaniards.		Other Europeans.		Chinese.		All others.		Total.
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
I. General diseases.													
1. Typhoid fever			29	11							2		42
4. Malaria			11	8			1		1				21
9. Diphtheria and croup				1									1
10. Influenza				5	1								6
12. Asiatic cholera			48	33					1		4		86
14. Dysentery			32	36					1			1	70
15. Plague	1		1										2
17. Leprosy			2										2
18. Erysipelas				4									4
20. Purulent infection and septichæmia			4	2	1				1				8
21. Glanders	1		1										2
23. Rabies				1									1
24. Tetanus			41	39					3				83
27. Beriberi		1	179	180					9	2			371
28. Tuberculosis of the lungs			266	209	1	1	2	1	23	1			504
29. Acute miliary tuberculosis			1										1
30. Tuberculous meningitis			16	9									25
31. Abdominal tuberculosis			3	9									12
32. Pott's disease									2				2
33. White swellings			1										1

Deaths, with causes, occurring among residents in the city of Manila (stillbirths not included)—Continued.

Causes of death.	Americans.		Filipinos.		Spaniards.		Other Europeans.		Chinese.		All others.		Total.
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
I. General diseases—Continued.													
34. Tuberculosis of other organs			1										1
35. Disseminated tuberculosis	1		1	1									3
36. Rickets					1								1
37. Syphilis			3	3			1						7
39. Cancer and other malignant tumors of the buccal cavity				1									1
40. Cancer and other malignant tumors of the stomach, liver			4	4									8
41. Cancer and other malignant tumors of the peritonæum, intestines, rectum			2			1							3
42. Cancer and other malignant tumors of the female genital organs				7									7
43. Cancer and other malignant tumors of the breast			1	1									2
45. Cancer and other malignant tumors of other organs and of organs not specified	1		9	2									12
47. Acute articular rheumatism			1	2					2				5
48. Chronic rheumatism and gout			5	3									8
49. Scurvy			1										1
50. Diabetes				2	1				1				4
54. Anæmia, chlorosis		1	3										4
55. Other general diseases				1									1
56. Alcoholism (acute or chronic)				1									1
57. Chronic lead poisoning			1										1
II. Diseases of the nervous system and of the organs of special sense.													
61. Simple meningitis			55	53									108
61a. Meningitis, cerebro-spinal, epidemic			1										1
62. Locomotor ataxia									1				1
63. Other diseases of the spinal cord			2										2
64. Cerebral hæmorrhage, apoplexy			24	24		1			2				51
65. Softening of the brain				1					1				2
66. Paralysis without specified cause			3	6					1				10
67. General paralysis of the insane				1									1
68. Other forms of mental alienation				1		1			1				3
69. Epilepsy			1										1
71. Convulsions of infants (under 5 years of age)	2		83	68					1	1			155
74. Other diseases of the nervous system				2			1						3
III. Diseases of the circulatory system.													
77. Pericarditis				1									1
78. Acute endocarditis			4	1	1								6
79. Organic diseases of the heart	2		28	17					13			1	61
80. Angina pectoris			3	4	1								8
81. Diseases of the arteries, atheroma, aneurysm, etc	2		11	7	1				5				26
84. Diseases of the lymphatic system (lymphangitis, etc)				1									1
85. Hæmorrage; other diseases of the circulatory system				1									1
IV. Diseases of the respiratory system.													
87. Diseases of the larynx			1										1
89. Acute bronchitis			111	80					1				192
90. Chronic bronchitis			33	28					5				66
91. Broncho-pneumonia			52	38		1			1				92
92. Pneumonia			11	10									21
93. Pleurisy			5	2									7
94. Pulmonary congestion, pulmonary apoplexy			1	2									3
96. Asthma			2	5									7

Deaths, with causes, occurring among residents in the city of Manila (stillbirths not included)—Continued.

Causes of death.	Americans.		Filipinos.		Spaniards.		Other Europeans.		Chinese.		All others.		Total.
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
V. Diseases of the digestive system.													
100. Diseases of the pharynx			2						1				3
101. Diseases of the æsophagus									2				2
102. Ulcer of the stomach			1						1				2
103. Other diseases of the stomach (cancer excepted)			2	3									5
104. Diarrhœa and enteritis (under 2 years)			84	70						1			155
105. Diarrhœa and enteritis (2 years and over)	1		25	22		1							49
107. Intestinal parasites			2	3					1				6
108. Appendicitis and typhlitis			3	1		1							5
109. Hernias, intestinal obstructions			2	1									3
110. Other diseases of the intestines			5	5									10
111. Acute yellow atrophy of the liver			2	1									3
113. Cirrhosis of the liver			3	2					2				7
114. Biliary calculi				3									3
115. Other diseases of the liver	1		5		1				1				8
117. Simple peritonitis (nonpuerperal)			5	1					3				9
VI. Nonvenereal diseases of the genito-urinary system and annexa.													
119. Acute nephritis			12	7						1			20
120. Bright's disease	2	1	30	34	2			1	7				77
122. Other diseases of the kidneys and annexa			1						1				2
123. Calculi of the urinary passages					1								1
127. Nonvenereal diseases of the male genital organs			2										2
128. Uterine hæmorrhage (nonpuerperal)				2									2
129. Uterine tumor (noncancerous)				2									2
130. Other diseases of the uterus				2									2
132. Salpingitis and other diseases of the female genital organs				1									1
VII. The puerperal state.													
134. Accidents of pregnancy				1									1
135. Puerperal hæmorrhage				12		1							13
137. Puerperal septichæmia				13									13
138. Puerperal albuminuria and convulsions				4									4
VIII. Diseases of the skin and of the cellular tissue.													
142. Gangrene			1										1
144. Acute abscess				4									4
IX. Diseases of the bones and of the organs of locomotion.													
146. Diseases of the bones (tuberculosis excepted)				1									1
X. Malformations.													
150. Congenital malformations (stillbirths not included):													
1. Hydrocephalus				1									1
2. Congenital malformations of the heart			1				1						2
3. Other congenital malformations		1	3	1									5
XI. Diseases of early infancy.													
151. Congenital debility, icterus, and sclerema			32	15									47
1. Premature birth (not stillborn)		1	6	9		1					1		18
2. Congenital debility			129	98					2				229

Deaths, with causes, occurring among residents in the city of Manila (stillbirths not included)—Continued.

Causes of death,	Americans.		Filipinos.		Spaniards.		Other European.		Chinese.		All others.		
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Total.
XI. Diseases of early infancy—Ctd.													
152. Other diseases peculiar to early infancy:													
1. Injuries at birth (not stillborn)								1					1
2. Other causes peculiar to early infancy			9	14	1								24
XII. Old age.													
154. Senility		1	51	103					1				156
XIII. Affections caused by external causes.													
155. Suicide by poison				1						1			2
157. Suicide by hanging or strangulation			1										1
158. Suicide by drowning			1	1					1				3
160. Suicide by cutting or piercing instruments			1	1					1				3
165b. Other acute poisonings			1										1
167. Burns (conflagration excepted)			6	7	2								15
169. Accidental drowning			5						3				8
170. Traumatism by firearms	1												1
171. Traumatism by cutting or piercing instruments			1	1									2
172. Traumatism by fall			4										4
175. Traumatism by other crushing (vehicles, railways, landsides, etc.)			7										7
183. Homicide by cutting or piercing intruments			2						1				3
186. Other external violence			1	1									2
XIV. Ill-defined diseases.													
187. Ill-defined organic disease				1									1
189. Cause of death not specified or ill-defined	2		10	5					3		1		21
Total	17	6	1,556	1,382	15	9	6	3	107	7	8	2	3,118
Grand total	23		2,938		24		9		114		10		3,118

NUMBER OF DEATHS, WITH CAUSES, OCCURRING AMONG TRANSIENTS IN THE CITY OF MANILA (STILLBIRTHS NOT INCLUDED).

Causes of death.	Americans.		Filipinos.		Spaniards.		Other Europeans.		Chinese.		All others.		
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Total.
I. General diseases.													
1. Typhoid fever			7	2							1		10
4. Malaria			3	5					1		2		11
9. Diphtheria and croup	1		1										2
12. Asiatic cholera	2		15	7									24
14. Dysentery		1	7	4					1				13
17. Leprosy			1										1
19. Other epidemic diseases			1										1
24. Tetanus	1		3	1									5
27. Beriberi			30	28					2		1		61
28. Tuberculosis of the lungs			61	18			1		1				81

Number of deaths, with causes, occurring among transients in the city of Manila (stillbirths not included)—Continued.

Causes of death.	Americans.		Filipinos.		Spaniards.		Other Europeans.		Chinese.		All others.		Total.
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
I. General diseases—Continued.													
30. Tuberculous meningitis			4	2									6
31. Abdominal tuberculosis			2	2			1						5
35. Disseminated tuberculosis			6	1									7
37. Syphilis			1										1
38. Gonococcus infection				1									1
40. Cancer and other malignant tumors of the stomach, liver			4										4
41. Cancer and other malignant tumors of the peritonæum, intestines, rectum			3										3
42. Cancer and other malignant tumors of the female genital organs				1									1
43. Cancer and other malignant tumors of the breast				1									1
45. Cancer and other malignant tumors of other organs and of organs not specified			3										3
46. Other tumors (tumors of the female genital organs excepted)			1	1									2
54. Anæmia, chlorosis				2									2
II. Diseases of the nervous system and of the organs of special sense.													
61. Simple meningitis			14	10									24
64. Cerebral hæmorrhage, apoplexy			2	1									3
66. Paralysis without specified cause			1										1
67. General paralysis of the insane			1										1
68. Other forms of mental alienation			12	5									17
71. Convulsions of infants (under 5 years of age)			19	16									35
74. Other diseases of the nervous system			1										1
76. Diseases of the ears			1										1
III. Diseases of the circulatory system.													
79. Organic diseases of the heart	1		3	2									6
80. Angina pectoris			1	1	1								3
81. Diseases of the arteries, atheroma, aneurysm, etc				1									1
83. Diseases of the veins (varices, hæmorrhoids, phlebitis, etc.)				1									1
84. Diseases of the lymphatic system (lymphangitis, etc.)			1										1
85. Hæmorrhage; other diseases of the circulatory system				1									1
IV. Diseases of the respiratory system.													
89. Acute bronchitis			20	21									41
90. Chronic bronchitis		1	4	3									8
91. Broncho-pneumonia			9	2									11
92. Pneumonia			8	3									11
93. Pleurisy				1		1							2
94. Pulmonary congestion, pulmonary apoplexy				1									1
95. Gangrene of the lungs			1										1
98. Other diseases of the respiratory system (tuberculosis excepted)			1										1
V. Diseases of the digestive system.													
102. Ulcer of the stomach				1	1								2
103. Other diseases of the stomach (cancer excepted)			3										3
104. Diarrhœa and enteritis (under 2 years)			13	11									24
105. Diarrhœa and enteritis (2 years and over)			5										5
108. Appendicitis and typhlitis			2	1			1					1	5
109. Herenias, intestinal obstructions				1									1
110. Other diseases of the intestines			2	1									3
111. Acute yellow atrophy of the liver			1										1
113. Cirrhosis of the liver			1	1	1								3
114. Biliary calculi		1	1										2
115. Other diseases of the liver				1									1
117. Simple peritonitis (nonpuerperal)			4	1									5

Number of deaths, with causes, occurring among transients in the city of Manila (stillbirths not included)—Continued.

Causes of death.	Americans.		Filipinos.		Spaniards.		Other Europeans.		Chinese.		All others.		Total.
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
VI. Nonvenereal diseases of the genito-urinary system and annexa.													
119. Acute nephritis				1									1
120. Bright's disease			4	8									12
122. Other diseases of the kidneys and annexa			3	1									4
123. Calculi of the urinary passages			2										2
VII. The puerperal state.													
134. Accidents of pregnancy				1									1
136. Other accidents of labor				1									1
137. Puerperal septichæmia				1									1
VIII. Diseases of the skin and of the cellular tissue.													
142. Gangrene			1	1									2
143. Furuncle			1										1
IX. Diseases of the bones and of the organs of locomotion.													
148. Amputation				1									1
X. Malformations.													
150. Congenital malformations (stillbirths not included:													
2. Congenital malformations of the heart			1										1
3. Other congenital malformations			2										2
XI. Diseases of early infancy.													
151. Congenital debility, icterus, and sclerema			8	3									11
1. Premature birth (not stillborn)			1										1
2. Congenital debility			8	5	1								14
152. Other causes peculiar to early infancy			2										2
XII. Old age.													
154. Senility			4	2									6
XIII. Affections caused by external causes.													
155. Suicide by poison	1												1
160. Suicide by cutting or piercing instruments			1										1
167. Burns (conflagration excepted)			2	1									3
170. Traumatism by firearms			1										1
171. Traumatism by cutting or piercing instruments			1						1				2
175. Traumatism by other crushing (vehicles, railways, landslides, etc.)			3	1									4
182. Homicide by firearms									1				1
185. Fractures (cause not specified)			1				1						2
186. Other external violence			2										2
XIV. Ill-defined diseases.													
189. Cause of death not specified or ill-defined			1		1								2
Total	6	3	333	190	5	1	4		7		4	1	554
Grand total	9		523		6		4		7		5		554

NUMBER OF DEATHS BY NATIONALITY, SEX, AND AGE.

Causes of death.	Under 30 days.												30 days to under 1 year.												1 year to under 2 years.											
	Americans.		Filipinos.		Spaniards.		Other Europeans.		Chinese.		All others.		Americans.		Filipinos.		Spaniards.		Other Europeans.		Chinese.		All others.		Americans.		Filipinos.		Spaniards.		Other Europeans.		Chinese.		All others.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
I. General diseases.																																				
4. Malaria															3	1																				
10. Influenza																1												1								
12. Asiatic cholera				4											8	5											4	5								
14. Dysentery															5	7											11	8								
18. Erysipelas																3																				
19. Other epidemic diseases															1																					
20. Purulent infection and septichæmia																1																				
24. Tetanus			35	37					1						1																					
27. Beriberi			15	16										1	164	165											4	1								
28. Tuberculosis of the lungs																1											5	2								
30. Tuberculous meningitis															4	5											6	4								
35. Disseminated tuberculosis															1																					
36. Rickets																	1																			
37. Syphilis			1												2	3																				
46. Other tumors (tumors of the female genital organs excepted)			1													1																				
54. Anæmia, chlorosis																										1										
55. Other general diseases				1																																
II. Diseases of the nervous system and of the organs of special sense.																																				
61. Simple meningitis			2	1											33	29											16	18								
64. Celebral hæmorrhage, apoplexy			1																																	
71. Convulsions of infants (under 5 years of age)	1		26	24									1		69	58					1	1					6	1								
74. Other diseases of the nervous system							1																													
76. Diseases of the ears															1																					
III. Diseases of the circulatory system.																																				
78. Acute endocarditis																													1							
79. Organic diseases of the heart																1																				

83. Diseases of the veins (varices, hæmorrhoids, phlebitis, etc.)				1																																
84. Diseases of the lymphatic system (lymphangitis, etc.)																1											1									
85. Hæmorrahage; other diseases of the circulatory system				1																																
IV. Diseases of the respiratory system.																																				
89. Acute bronchitis			7	5											103	78					1						18	13								
90. Chronic bronchitis															20	13										1	10	8								
91. Broncho-pneumonia			2	1											28	20											6	8								
92. Pneumonia															3	2											3	1								
93. Pleurisy															1	1											3									
94. Pulmonary congestion, pulmonary apoplexy			1													1																				
V. Diseases of the digestive system.																																				
100. Diseases of the pharynx															1																					
103. Other diseases of the stomach (cancer excepted)															1												1									
104. Diarrhœa and enteritis (under 2 years)			4	3											71	57						1					22	21								
107. Intestine parasites															1												1	1								
109. Hernias, intestinal obstructions																1																				
110. Other diseases of the intestines															1												1									
VI. Nonvenereal diseases of the genito-urinary system and annexa.																																				
119. Acute nephritis															3	1											2	3								
120. Bright's disease															2	1												1								
VIII. Diseases of the skin and of the cellular tissue.																																				
143. Furuncle																											1									
144. Acute abscess																1												1								
X. Malformations.																																				
150. Congenital malformations (stillbirths not included):																																				
1. Hydrocephalus																1																				
2. Congenital malformations of the heart			2																1																	
3. Other congenital malformations		1	4	1											1																					

Number of deaths by nationality, sex, and age—Continued.

Causes of death.	Under 30 days.												30 days to under 1 year.												1 year to under 2 years.											
	Americans.		Filipinos.		Spaniards.		Other Europeans.		Chinese.		All others.		Americans.		Filipinos.		Spaniards.		Other Europeans.		Chinese.		All others.		Americans.		Filipinos.		Spaniards.		Other Europeans.		Chinese.		All others.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
XI. Diseases of early infancy.																																				
151. Congenital debility, icterus and sclerema			11	4											29	13												1								
1. Premature birth (not stillborn)		1	6	9		1					1				1																					
2. Congenital debility			119	91	1				2						18	12																				
152. Other diseases peculiar to early infancy:																																				
1. Injuries at birth (not stillborn)								1																												
2. Other causes peculiar to early infancy			11	13	1											1																				
XIII. Affections caused by external causes.																																				
167. Burns (conflagration excepted)																											1	1								
186. Other external violence																1																				
XIV. Ill-defined diseases.																																				
189. Cause of death not specified or ill-defined			1	1											2										1		2									
Total	1	2	249	213	2	1	1	1	3		1		1	1	578	486	1		1		2	2			1	2	124	99	1							
Grand total	3		462		3		2		3		1		2		1,064		1		1		4		------		3		223		1		------		------		------	

Causes of death.	2 years to 4 years.												5 years to 9 years.												10 years to 14 years.											
	Americans.		Filipinos.		Spaniards.		Other Europeans.		Chinese.		All others.		Americans.		Filipinos.		Spaniards.		Other Europeans.		Chinese.		All others.		Americans.		Filipinos.		Spaniards.		Other Europeans.		Chinese.		All others.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
I. General diseases.																																				
1. Typhoid fever			2													1											4	1								
4. Malaria				1											1	2												1								
9. Diphtheria and croup	1		1																																	
12. Asiatic cholera			5	5											6	2											2	1								
14. Dysentery		1	11	6											4	6											1	2								
23. Rabies																1																				
24. Tetanus				1											1												1									
27. Beriberi			6	3											1	3						1					2	1								
28. Tuberculosis of the lungs			6	8											7	5											7	2								
30. Tuberculous meningitis			4	1											1	1																				
31. Abdominal tuberculosis				1											1																					
33. White swellings															1																					
34. Tuberculosis of other organs																											1									
35. Disseminated tuberculosis			1																																	
49. Scurvy																											1									
54. Anæmia, chlorosis																											1									
II. Diseases of the nervous system and of the organs of special sense.																																				
61. Simple meningitis			6	12											4	1											3	1								
63. Other diseases of the spinal cord			1																																	
64. Cerebral hæmorrhage, apoplexy				1											1												1									
71. Convulsions of infants (under 5 years of age)			1	1																																
III. Diseases of the circulatory system.																																				
78. Acute endocarditis				1											1																					
79. Organic diseases of the heart	1			1											1						1						1	1								
80. Angina pectoris																												1								

Number of deaths by nationality, sex, and age—Continued.

Causes of death.	2 years to 4 years.												5 years to 9 years.												10 years to 14 years.											
	Americans.		Filipinos.		Spaniards.		Other Europeans.		Chinese.		All others.		Americans.		Filipinos.		Spaniards.		Other Europeans.		Chinese.		All others.		Americans.		Filipinos.		Spaniards.		Other Europeans.		Chinese.		All others.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
IV. Diseases of the respiratory system.																																				
89. Acute bronchitis			3	3												1																				
90. Chronic bronchitis			1	5											1	1																				
91. Broncho-pneumonia			11	5											2	1												1								
92. Pneumonia			1	2											2																					
94. Pulmonary congestion, pulmonary apoplexy																1																				
V. Diseases of the digestive system.																																				
103. Other diseases of the stomach (cancer excepted)				1																																
105. Diarrhœa and enteritis (2 years and over)			22	15											1	3																				
107. Intestinal parasites				2												1																	1			
110. Other diseases of the intestines			1	2											3	1																				
114. Biliary calculi																											1									
117. Simple peritonitis (nonpuerperal)																											1									
VI. Nonvenereal diseases of the genito-urinary system and annexa.																																				
119. Acute nephritis			2							1						1											1									
120. Bright's disease			1	2											2	3											1									
VIII. Diseases of the skin and of the cellular tissue.																																				
144. Acute abscess				1																																

XIII. Affections caused by external causes.																																				
167. Burns (conflagration excepted)			2												1	1											1	1								
169. Accidental drowning															1												1									
175. Traumatism by other crushing (vehicles, railways, landslides, etc.)			1																																	
XIV. Ill-defined diseases.																																				
189. Cause of death not specified or ill-defined			1																				1				1									
Total	2	1	90	80						1					43	36					1	1	1				32	13					1			
Grand total	3		170						1						79						2		1				45						1			

Causes of death.	15 years to 19 years.												20 years to 29 years.												30 years to 39 years.											
	Americans.		Filipinos.		Spaniards.		Other Europeans.		Chinese.		All others.		Americans.		Filipinos.		Spaniards.		Other Europeans.		Chinese.		All others.		Americans.		Filipinos.		Spaniards.		Other Europeans.		Chinese.		All others.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
I. General diseases.																																				
1. Typhoid fever			14	2											13	4							2				2	4								
4. Malaria			3	1												1											3	3			1		1		2	
9. Diphtheria and croup																1																				
10. Influenza				1																																
12. Asiatic cholera			3												14	7							2				11	4					1		1	
14. Dysentery												1			1	5											1	3					1			
15. Plague															1																					
17. Leprosy																											2									
18. Erysipelas																1																				
20. Purulent infection and septichæmia			1																										1							
21. Glanders																									1		1									
24. Tetanus			1													1									1		1	1					1			
27. Beriberi			6												4	5											3	6					1	1	1	
28. Tuberculosis of the lungs			23	7					1						70	60				1	4	1					71	53	1		1		4			
30. Tuberculous meningitis			1												3												1									
31. Abdominal tuberculosis			1												2	2											1	2			1					
35. Disseminated tuberculosis															2										1		1	1								

Number of deaths by nationality, sex, and age—Continued.

Causes of death.	15 years to 19 years.												20 years to 29 years.												30 years to 39 years.											
	Americans.		Filipinos.		Spaniards.		Other Europeans.		Chinese.		All others.		Americans.		Filipinos.		Spaniards.		Other Europeans.		Chinese.		All others.		Americans.		Filipinos.		Spaniards.		Other Europeans.		Chinese.		All others.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
I. General diseases—Continued.																																				
37. Syphilis																															1					
38. Gonococcus infection																1																				
40. Cancer and other malignant tumors of the stomach, liver																											1									
45. Cancer and other malignant tumors of other organs and of organs not specified																1									1											
47. Acute articular rheumatism			1													1					1												1			
48. Chronic rheumatism and gout																											1									
54. Anæmia, chlorosis															1	1											1									
II. Diseases of the nervous system and of the organs of special sense.																																				
61. Simple meningitis			1												3	1											1									
61a. Cerebro-spinal fever			1																																	
64. Cerebral hæmorrhage, apoplexy			1												1	3											3	2					1			
66. Paralysis without specified cause																												1								
67. General paralysis of the insane																												1								
68. Other forms of mental alienation			1												1												9	3								
74. Other diseases of the nervous system															1	1																				
III. Diseases of the circulatory system.																																				
77. Pericarditis																1																				
79. Organic diseases of the heart			3	2											4	5									1		5	2					4			
80. Angina pectoris					1																						1	1								
81. Diseases of the arteries, atheroma, aneurysm, etc																									1								1			
85. Hæmorrhage; other diseases of the circulatory system																1																				

IV. Diseases of the respiratory system.																																				
87. Diseases of the larynx																											1									
91. Broncho-pneumonia															3		1										1	3								
92. Pneumonia				2											4	2											2	1								
93. Pleurisy																														1						
96. Asthma																1																				
V. Diseases of the digestive system.																																				
100. Diseases of the pharynx																					1															
102. Ulcer of the stomach																1													1							
103. Other diseases of the stomach (cancer excepted)															1	1											1									
105. Diarrhœa and enteritis (2 years and over)															2												1	2		1						
108. Appendicitis and typhlitis			1	1		1													1					1			4	1								
109. Hernias, intestinal obstructions																											1	1								
110. Other diseases of the intestines				1																								2								
111. Acute yellow atrophy of the liver																											1									
113. Cirrhosis of the liver															1												1		1							
114. Biliary calculi																2																				
115. Other diseases of the liver									1						2																					
117. Simple peritonitis (nonpuerperal)															2						1						3	2					1			
VI. Nonvenereal diseases of the genito-urinary system and annexa.																																				
119. Acute nephritis			1												1	2											1	1								
120. Bright's disease			1												4	5	1				1						2	9								
122. Other diseases of the kidneys and annexa																											2	1								
128. Uterine hæmorrhage (nonpuerperal)																2																				
129. Uterine tumor (noncancerous)																1																				
130. Other diseases of the uterus																												2								
132. Salpingitis and other diseases of the female genital organs																1																				
VII. The puerperal state.																																				
134. Accidents of pregnancy																												2								
135. Puerperal hæmorrhage																10												2								
136. Other accidents of labor																												1								
137. Puerperal septichæmia				2												4												5								
138. Puerperal albuminuria and convulsions																2												1								
VIII. Diseases of the skin and of the cellular tissue.																																				
144. Acute abscess																												1								
IX. Diseases of the bones and of the organs of locomotion.																																				
146. Diseases of the bones (tuberculosis excepted)																												1								
148. Amputation																1																				

Number of deaths by nationality, sex, and age—Continued.

Causes of death.	15 years to 19 years.												20 years to 29 years.												30 years to 39 years.											
	Americans.		Filipinos.		Spaniards.		Other Europeans.		Chinese.		All others.		Americans.		Filipinos.		Spaniards.		Other Europeans.		Chinese.		All others.		Americans.		Filipinos.		Spaniards.		Other Europeans.		Chinese.		All others.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
XIII. Affections caused by external causes.																																				
155. Suicide by poison				1						1																										
157. Suicide by hanging or strangulation															1																					
158. Suicide by drowning																1					1															
160. Suicide by cutting or piercing instruments															1	1											1									
165b. Other acute poisonings																											1									
167. Burns (conflagration excepted)			1	1											2	3	1												1							
169. Accidental drowning															2												2						1			
171. Traumatism by cutting or piercing instruments															1	1					1															
172. Traumatism by fall															3												1									
175. Traumatism by other crushing (vehicles, railways, landslides, etc.)			1	1											2												4									
183. Homicide by cutting or piercing instruments															1												1									
185. Fractures (cause not specified)																											1									
186. Other external violence															1												2									
XIV. Ill-defined diseases.																																				
189. Cause of death not specified or ill-defined									1						3	1	1				1				1											
Total	...	...	66	22	1	1	...	...	3	1	...	1	...	...	158	145	3	1	1	1	11	1	4	1	7	...	154	125	5	2	4	...	18	1	4	...
Grand total	------		88		2		------		4		1		------		303		4		2		12		5		7		279		7		4		19		4	

Causes of death.	40 years to 49 years.												50 years to 59 years.												60 years to 69 years.											
	Americans.		Filipinos.		Spaniards.		Other Europeans.		Chinese.		All others.		Americans.		Filipinos.		Spaniards.		Other Europeans.		Chinese.		All others.		Americans.		Filipinos.		Spaniards.		Other Europeans.		Chinese.		All others.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
I. General diseases.																																				
1. Typhoid fever				1											1																					
4. Malaria			4						1							2																				
10. Influenza				1																																
12. Asiatic cholera	2		4	2							1				4	1												2								
14. Dysentery			2	1											2						1							1								
15. Plague	1																																			
17. Leprosy																											1									
20. Purulent infection and septichæmia			1												1						1						1									
24. Tetanus			1						1						1												1									
27. Beriberi			2	2					9							4					1															
28. Tuberculosis of the lungs			54	39		1	1		6						44	26					9						20	14			1					
29. Acute miliary tuberculosis															1																					
31. Abdominal tuberculosis				2												3												1								
32. Pott's disease									2																											
35. Disseminated tuberculosis			1												1	1																				
37. Syphilis			1																																	
39. Cancer and other malignant tumors of the buccal cavity																1																				
40. Cancer and other malignant tumors of the stomach, liver			4	2											2	1																				
41. Cancer and other malignant tumors of the peritonæum, intestines, rectum			1												2												2			1						
42. Cancer and other malignant tumors of the female genital organs				4												2												1								
43. Cancer and other malignant tumors of the breast																1												1								
45. Cancer and other malignant tumors of other organs and of organs not specified			3												3												3									
47. Acute articular rheumatism																												1								
48. Chronic rheumatism and gout			1																								1									
50. Diabetes				1																	1							1	1							
56. Alcoholism (acute or chronic)																1																				
57. Chronic lead poisoning															1																					

Number of deaths by nationality, sex, and age—Continued.

Causes of death.	40 years to 49 years.												50 years to 59 years.												60 years to 69 years.											
	Americans.		Filipinos.		Spaniards.		Other Europeans		Chinese.		All others.		Americans.		Filipinos.		Spaniards.		Other Europeans		Chinese.		All others.		Americans.		Filipinos.		Spaniards.		Other Europeans		Chinese.		All others.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
II. Diseases of the nervous system and of the organs of special sense.																																				
61. Simple meningitis																											1									
62. Locomotor ataxia																					1															
63. Other diseases of the spinal cord															1																					
64. Cerebral hæmorrhage, apoplexy			2	4											5	6					1						2	3								
65. Softening of the brain				1					1																											
66. Paralysis without specified cause																											2	2					1			
67. General paralysis of the insane			1																																	
68. Other forms of mental alienation			1	3		1															1															
69. Epilepsy															1																					
74. Other diseases of the nervous system				1																																
III. Diseases of the circulatory system.																																				
78. Acute endocarditis			1												2																					
79. Organic diseases of the heart	1		2						6			1			4						2						5	3								
80. Angina pectoris			1												1												1		1							
81. Diseases of the arteries, atheroma, aneurysm, etc			2	1					2						2						2						3	2	1							
IV. Diseases of the respiratory system.																																				
90. Chronic bronchitis			1	1												1					3						2	1					1			
91. Broncho-pneumonia			5						1						1	1											1									
92. Pneumonia			2												1	1																				
93. Pleurisy				1												1											1									
94. Pulmonary congestion, pulmonary apoplexy																												1								
95. Gangrene of the lungs															1																					
96. Asthma			1												1													2								
98. Other diseases of the respiratory system (tuberculosis excepted)			1																																	

V. Diseases of the digestive system.																																				
100. Diseases of the pharynx																											1									
101. Diseases of the œsophagus									1												1															
102. Ulcer of the stomach			1						1																											
103. Other diseases of the stomach (cancer excepted)															1																					
105. Diarrhœa and enteritis (2 years and over)	1		1	1											1																					
109. Hernias, intestinal obstructions			1																																	
110. Other diseases of the intestines																											1									
111. Acute yellow atrophy of the liver				1											1												1									
113. Cirrhosis of the liver															2	2												1					2			
114. Biliary calculi				1																						1										
115. Other diseases of the liver			1	1									1		1		1																			
117. Simple peritonitis (nonpuerperal)			1												1						1															
VI. Nonvenereal diseases of the genito-urinary system and annexa.																																				
119. Acute nephritis																											1									
120. Bright's disease	1	1	7	6	1				6						4	5									1		5	1				1				
122. Other diseases of the kidneys and annexa			1												1						1															
123. Calculi of the urinary passages					1										1																					
127. Nonvenereal diseases of the male genital organs															1																					
VII. The puerperal state.																																				
135. Puerperal hæmorrhage						1																														
137. Puerperal septichæmia				3																																
138. Puerperal albuminuria and convulsions				1																																
VIII. Diseeases of the skin and of the cellular tissue.																																				
142. Gangrene				1											1												1									
XII. Old age.																																				
154. Senility															1												2	8					1			
XIII. Affections caused by external causes.																																				
155. Suicide by poison	1																																			
158. Suicide by drowning															1																					
167. Burns (conflagration excepted)																1																				
169. Accidental drowning									1																											
170. Traumatism by firearms	1																																			

Number of deaths by nationality, sex, and age—Continued.

Causes of death.	40 years to 49 years.												50 years to 59 years.												60 years to 69 years.											
	Americans.		Filipinos.		Spaniards.		Other Europeans		Chinese.		All others.		Americans.		Filipinos.		Spaniards.		Other Europeans		Chinese.		All others.		Americans.		Filipinos.		Spaniards.		Other Europeans		Chinese.		All others.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
XIII. Affections caused by external causes—Continued.																																				
171. Traumatism by cutting or piercing instruments			1																																	
175. Traumatism by other crushing (vehicles, railways, landslides, etc.)																											1									
182. Homicide by firearms																					1															
183. Homicide by cutting or piercing instruments									1																											
XIV. Ill-defined diseases.																																				
187. Ill-defined organic diseases																												1								
189. Cause of death not specified or ill-defined				1												1					1						1	1								
Total	8	1	113	83	2	3	1	---	39	---	1	1	1	---	100	62	1	---	---	---	28	---	---	---	1	1	61	48	3	1	1	1	5	---	---	---
Grand total	9		196		5		1		39		2		1		162		1		------		28		------		2		109		4		2		5		------	

Causes of death.	70 years and over.												Unknown.												Total.												Grand total.
	Americans.		Filipinos.		Spaniards.		Other Europeans.		Chinese.		All others.		Americans.		Filipinos.		Spaniards.		Other Europeans.		Chinese.		All others.		Americans.		Filipinos.		Spaniards.		Other Europeans.		Chinese.		All others.		
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
I. General diseases.																																					
1. Typhoid fever																							1				36	13							3		52
4. Malaria				1																							14	13			1		2		2		32
9. Diphtheria and croup																									1		1	1									3
10. Influenza				1	1																							5	1								6
12. Asiatic cholera			2	2																					2		63	40					1		4		110
14. Dysentery			1	1																						1	39	40					2			1	83
15. Plague																									1		1										2
17. Leprosy																											3										3
18. Erysipelas																												4									4
19. Other epidemic diseases																											1										1
20. Purulent infection and septichæmia				1																							4	2	1				1				8
21. Glanders																									1		1										2
23. Rabies																												1									1
24. Tetanus			1																						1		44	40					3				88
27. Beriberi			2	2																						1	209	208					11	2	1		432
28. Tuberculosis of the lungs			20	9												1											327	227	1	1	3	1	24	1			585
29. Acute miliary tuberculosis																											1										1
30. Tuberculous meningitis																											20	11									31
31. Abdominal tuberculosis																											5	11			1						17
32. Pott's disease																																	2				2
33. White swellings																											1										1
34. Tuberculosis of other organs																											1										1
35. Disseminated tuberculosis																									1		7	2									10
36. Rickets																													1								1
37. Syphilis																											4	3			1						8
38. Gonococcus infection																												1									1
39. Cancer and other malignant tumors of the buccal cavity																												1									1
40. Cancer and other malignant tumors of the stomach, liver			1	1																							8	4									12
41. Cancer and other malignant tumors of the peritonæum, intestines, rectum																											5			1							6

Number of deaths by nationality, sex, and age—Continued.

Causes of death.	70 years and over.												Unknown.												Total.												Grand total.
	Americans.		Filipinos.		Spaniards.		Other Europeans.		Chinese.		All others.		Americans.		Filipinos.		Spaniards.		Other Europeans.		Chinese.		All others.		Americans.		Filipinos.		Spaniards.		Other Europeans.		Chinese.		All others.		
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
I. General diseases—Continued.																																					
42. Cancer and other malignant tumors of the female genital organs				1																								8									8
43. Cancer and other malignant tumors of the breast			1																								1	2									3
45. Cancer and other malignant tumors of other organs and of organs not specified			3	1																					1		12	2									15
46. Other tumors (tumors of the female genital organs excepted)																											1	1									2
47. Acute articular rheumatism																											1	2					2				5
48. Chronic rheumatism and gout			2	3																							5	3									8
49. Scurvy																											1										1
50. Diabetes																												2	1				1				4
54. Anæmia, chlorosis				1																						1	3	2									6
55. Other general diseases																												1									1
56. Alcoholism (acute or chronic)																												1									1
57. Chronic lead poisoning																											1										1
II. Diseases of the nervous system and of the organs of special sense.																																					
61. Simple meningitis																											70	63									133
61a. Cerebro-spinal fever																											1										1
62. Locomotor ataxia																																	1				1
63. Other diseases of the spinal cord																											2										2
64. Cerebral hæmorrhage, apoplexy			9	6		1																					26	25		1			2				54
65. Softening of the brain																												1					1				2
66. Paralysis without specified cause			2	3																							4	6					1				11
67. General paralysis of the insane																											1	1									2

68. Other forms of mental alienation																											12	6		1			1				20
69. Epilepsy																											1										1
71. Convulsions of infants (under 5 years of age)																									2		102	84					1	1			190
74. Other diseases of the nervous system																											1	2			1						4
76. Diseases of the ears																											1										1
III. Diseases of the circaultory system.																																					
77. Pericarditis																												1									1
78. Acute endocarditis																											4	1	1								6
79. Organic diseases of the heart			6	4																					3		31	19					13			1	67
80. Angina pectoris				8																							4	5	2								11
81. Diseases of the arteries, atheroma, aneurysm, etc	1		4	5																					2		11	8	1				5				27
83. Diseases of the veins (varices, hæmorrhoids, phlebitis, etc.)																												1									1
84. Diseases of the lymphatic system (lymphangitis, etc.)																											1	1									2
85. Hæmorrhage; other diseases of the circulatory system																												2									2
IV. Diseases of the respiratory system.																																					
87. Diseases of the larynx																											1										1
89. Acute bronchitis				1																							131	101					1				233
90. Chronic bronchitis			2	1					1																	1	87	31					5				74
91. Broncho-pneumonia			1																								61	40		1			1				103
92. Pneumonia			1	2																							19	13									32
93. Pleurisy																											5	3		1							9
94. Pulmonary congestion, pulmonary apoplexy																											1	3									4
95. Gangrene of the lungs																											1										1
96. Asthma				2																							2	5									7
98. Other diseases of the respiratory system (tuberculosis excepted)																											1										1
V. Diseases of the digestive system.																																					
100. Diseases of the pharynx																											2						1				3
101. Diseases of the œsophagus																																	2				2
102. Ulcer of the stomach																											1	1	1				1				4
103. Other diseases of the stomach (cancer excepted)				1																							5	3									8
104. Diarrhœa and enteritis (under 2 years)																											97	81						1			179
105. Diarrhœa and enteritis (2 years and over)			2	1																					1		30	22		1							54
107. Intestinal parasites																											2	4					1				7

Number of deaths by nationality, sex, and age—Continued.

Causes of death.	70 years and over.												Unknown.												Total												Grand total.
	Americans.		Filipinos.		Spaniards.		Other Europeans.		Chinese.		All others.		Americans.		Filipinos.		Spaniards.		Other Europeans.		Chinese.		All others.		Americans.		Filipinos.		Spaniards.		Other Europeans.		Chinese.		All others.		
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
V. Diseases of the digestive system—Continued.																																					
108. Appendicitis and typhlitis																											5	2		1	1					1	10
109. Hernias, intestinal obstructions																											2	2									4
110. Other diseases of the intestines																											7	6									13
111. Acute yellow atrophy of the liver																											3	1									4
113. Cirrhosis of the liver																											4	3	1				2				10
114. Biliary calculi																										1	1	3									5
115. Other diseases of the liver			1																						1		5	1	1				1				9
117. Simple peritonitis (nonpuerperal			1																								9	2					3				14
VI. Nonvenereal diseases of the genito-urinary system and annexa.																																					
119. Acute nephritis																											12	8						1			21
120. Bright's disease			5	9																					2	1	34	42	2			1	7				89
122. Other diseases of the kidneys and annexa																											4	1					1				6
123. Calculi of the urinary passages			1																								2		1								3
127. Nonvenereal diseases of the male genital organs			1																								2										2
128. Uterine hæmorrhage (nonpuerperal)																												2									2
129. Uterine tumor (noncancerous)				1																								2									2
130. Other diseases of the uterus																												2									2
132. Salpingitis and other diseases of the female genital organs																												1									1
VII. The puerperal state.																																					
134. Accidents of pregnancy																												2									2
135. Puerperal hæmorrhage																												12		1							13
136. Other accidents of labor																												1									1

137. Puerperal septichæmia																												14									14
138. Puerperal albuminuria and convulsions																												4									4
VIII. Diseases of the skin and of the cellular tissue.																																					
142. Gangrene																											2	1									3
143. Furuncle																											1										1
144. Acute abscess																												4									4
IX. Diseases of the bones and of the organs of locomotion.																																					
146. Diseases of the bones (tuberculosis excepted)																												1									1
148. Amputation																												1									1
X. Malformations.																																					
150. Congenital malformations (stillbirths not included):																																					
1. Hydrocephalus																												1									1
2. Congenital malformations of the heart																											2				1						3
3. Other congenital malformations																										1	5	1									7
XI. Diseases of early infancy.																																					
151. Congenital debility, icterus and sclerema																											40	18									58
1. Premature birth (not stillborn)																										1	7	9		1					1		19
2. Congenital debility																											137	103	1				2				243
152. Other diseases peculiar to early infancy:																																					
1. Injuries at birth (not stillborn																																1					1
2. Other causes peculiar to early infancy																											11	14	1								26
XII. Old age.																																					
154. Senility		1	52	97																						1	55	105					1				162
XIII. Affections caused by external causes.																																					
155. Suicide by poison																									1			1						1			3
157. Suicide by hanging or strangulation																											1										1

Number of deaths by nationality, sex, and age—Continued.

Causes of death.	70 years and over.												Unknown.												Total.												Grand total.
	Americans.		Filipinos.		Spaniards.		Other Europeans.		Chinese.		All others.		Americans.		Filipinos.		Spaniards.		Other Europeans.		Chinese.		All others.		Americans.		Filipinos.		Spaniards.		Other Europeans.		Chinese.		All others.		
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
XIII. Affections caused by external causes—Continued.																																					
158. Suicide by drowning																											1	1					1				3
160. Suicide by cutting or piercing instruments																					1						2	1					1				4
165b. Other acute poisonings																											1										1
167. Burns (conflagration excepted)																											8	8	2								18
169. Accidental drowning																					1						6						3				9
170. Traumatism by firearms															1										1		1										2
171. Traumatism by cutting or piercing instruments																											2	1					1				4
172. Traumatism by fall																											4										4
175. Traumatism by other crushing (vehicles, railways, landslides, etc.)			1	1																							10	2									12
182. Homicide by firearms																																	1				1
183. Homicide by cutting or piercing instruments																											2						1				3
185. Fractures (cause not specified)																			1								1				1						2
186. Other external violence																											3	1									4
XIV. Ill-defined diseases.																																					
187. Ill-defined organic diseases																												1									1
189. Cause of death not specified or ill-defined															2										2		13	5	1				3		1		25
Total	1	1	122	161	1	1			1						3	1			1		2		1		23	9	1,893	1,574	20	10	10	3	114	7	12	3	3,678
Grand total	2		283		2				1						4				1		2		1		32		3,467		30		13		121		15		3,678

Four males and 2 females included, unclassified as permanent or transient resident.

INFANT MORTALITY.

Causes of death.	Mother's milk.		Wet nurse.		Other milk.		Not milk.		Mixed.			Not stated.		
	Under 30 days.	From 30 days to 1 year.	Under 30 days.	From 30 days to 1 year.	Under 30 days.	From 30 days to 1 year.	Under 30 days.	From 30 days to 1 year.	Under 30 days.	From 30 days to 1 year.	Under 30 days without food.	Under 30 days.	From 30 days to 1 year.	Total.
Acute laryngitis, acute nephritis						1							1	2
Asphyxia neonatorum (premature six months)												1		1
Acute œdema and congestion of lungs. Dilatation, acute cardiac													1	1
Asphyxia neonatorum											2	3		5
Asphyxia from aspiration of food of vomitus		1												1
Abdominal tumor (floating kidney)		1												1
Acute suppurative meningitis		1										1	1	3
Athrepsia		1			1	7								9
Bronchitis:														
Acute	5	121			3	32				6		4	11	182
Chronic		13				16				3			1	33
Capillary		9				5								14
Broncho-pneumonia	1	29				11						2	7	50
Broncho-pneumonia, chronic enterocolitis													1	1
Broncho-pneumonia; meningitis, simple, as a complication		1												1
Bronchitis and ascariasis													1	1
Beriberi infantile	28	286			1	15	1			5		3	24	363
Bilateral lobular pneumonia, acute bronchitis, catarrhal, enteritis													1	1
Beriberi infantile, bronchitis, acute, broncho-pneumonia												1		1
Beriberi infantile (?)						1								1
Bronchitis, capillary grippal		1												1
Bronchitis and beriberi infantile													2	2
Cerebral meningitis, lobar pneumonia													1	1
Congenital debility	113	9	1		14	18	4		1	4	18	59		241
Congenital debility, due to prematurity												3		3
Congenital malformations												1		1
Congenital obstruction of intestines											1			1
Convulsions of children	40	105			9	16				1		4	6	181
Convulsions (gastrointestinal infection)						1								1
Convulsions of children (?)						1								1
Congenital stenosis of rectum, complete												1		1
Cholera, asiatic	3	7				2				1		1	2	16
Cerebral hæmorrhage												1		1
Congenital hydrocephalus		1												1
Congenital atelectasis												1		1
Colibacilar fever										1				1
Diarrhœa and enteritis:														
Acute		2				12								14
Chronic		3				5								8
Dysentery:														
Acute		2				5							1	8
Bacillary		1				2								3
Dilatation of right side of heart, congenital													1	1
Dyspepsia, gastrointestinal						1								1
Diarrhœa, green						1								1
Dysentery, amœbiasis													1	1
Enterocolitis		1												1
Chronic						1								1
Chronic and abscess						1								1
Enteritis:														
Acute		1			1	6				2				10
Chronic						7				1			1	9
Erysipelas		2				1								3
Gastroenteritis:														
Acute		18		1	2	20				1		1	12	55
Chronic		2			2	6				1			6	17
Hæmorrhages, spontaneous newborn, gastric form	1													1
Hæmophilia, hæmorrhage	1													1
Hæmorrhage of newborn	3											3		6
Hæmorrhage from sloughing umbilicus	2	1	1											4

Infant mortality—Continued.

Causes of death.	Mother's milk.		Wet nurse.		Other milk.		Not milk.		Mixed.			Not stated.		
	Under 30 days.	From 30 days to 1 year.	Under 30 days.	From 30 days to 1 year.	Under 30 days.	From 30 days to 1 year.	Under 30 days.	From 30 days to 1 year.	Under 30 days.	From 30 days to 1 year.	Under 30 days without food.	Under 30 days.	From 30 days to 1 year.	Total.
Hæmatemesis and melena	2												1	3
Infantile atrophy										1			1	2
Inperfect expension of lungs												1		1
Imperforated rectum, congenital												2		2
Intestinal parasites		1												1
Inanition					1							1		2
Inanition from premature birth						1								1
Inanition from cleft palate												1		1
Icterus	8	1			2						1			12
Intestinal obstruction						1								1
Malarial infection													1	1
Malaria, tertian?													1	1
Marasmus		15				17				1				33
Meningitis:														
Acute	2	28				8				1			2	41
Cerebral		5				2								7
Simple		7				3							1	11
Monster (anencephalus)												1		1
Meningocele													1	1
Marasmus, broncho-pneumonia													1	1
Malnutrition						3							2	5
Malnutrition and bronchitis, acute, ileocolitis, chronic													1	1
Meningitis, cerebral, due to otitis						1								1
Marasmus and eczema													1	1
Marasmus, enterocolitis, chronic													1	1
Marasmus, pulmonary congestion													1	1
Malnutrition (probably syphilis)						1								1
Nephritis		2				1								3
Acute						3								3
Omphalitis	1													1
Otitis, suppurative													1	1
Parrot disease						1		1					1	3
Patent foramen ovale					1									1
Premature birth												14		14
Paludism		1												1
Purpura hæmorrhagica					1									1
Pleurisy, purulent		1				1								2
Pneumonia		3				1							1	5
Parotiditis (mumps)		1												1
Pulmonary congestion												1		1
Purulent infection (phlegmon difuse)						1								1
Phlegmon of neck													1	1
Purpura hæmorrhagica (syphilitic)												1		1
Parrot disease (infantile atrophy)		1				1								2
Rickets						1								1
Result of difficult delivery												2		2
Streptocochæmia, following infected hæmatoma over scalp												1		1
Suppurative thrombophlebitis of hypogastric vein												1		1
Septichæmia neonatorum	3													3
Septichæmia and pharyngitis, possibly diphtheria													1	1
Status thymic lymphaticus										1				1
Tuberculous pneumonia													1	1
Tuberculosis generalized													1	1
Tetany												1		1
Tetanus, infantile	54	1			3						2	14		74
Traumatic, hæmorrhage, intestinal	1													1
Tuberculous meningitis		7				1				1				9
Undetermined (not acute infection)												1		1
Winkle's disease												1		1
Total	268	693	2	1	41	242	5	1	1	31	24	133	104	1,546

COMPARATIVE MORTALITY FROM JANUARY, 1901, TO DECEMBER, 1913, INCLUSIVE.

Month.	1901		1902		1903		1904	
	Deaths.	Annual death rate per 1,000.	Deaths.	Annual death rate per 1,000.	Deaths.	Annual death rate per 1,000.	Deaths.	Annual death rate per 1,000.
January	753	[a]36.25	760	[a]36.58	602	[a]28.98	796	[b]42.64
February	689	[a]36.72	706	[a]37.63	511	[a]27.23	709	[b]40.59
March	885	[a]42.60	770	[a]37.06	539	[a]25.94	751	[b]40.23
April	886	[a]44.07	1,327	[a]66.01	549	[a]27.31	748	[b]41.40
May	903	[a]43.47	1,688	[a]81.26	770	[a]37.06	766	[b]41.03
June	621	[a]30.89	1,418	[a]70.54	592	[a]29.45	800	[b]44.28
July	608	[a]29.27	2,223	[a]107.02	620	[b]33.21	866	[b]46.39
August	702	[a]33.79	1,712	[a]82.41	862	[b]46.17	1,032	[b]55.28
September	767	[a]38.15	1,132	[a]56.31	1,228	[b]67.97	1,064	[b]58.89
October	855	[a]41.16	927	[a]44.62	1,217	[b]65.19	1,018	[b]54.53
November	848	[a]42.18	1,035	[a]51.48	974	[b]53.91	957	[b]52.97
December	858	[a]41.30	753	[a]36.25	894	[b]47.89	794	[b]42.53
Total	9,375	[a]38.30	14,451	[a]59.04	9,358	[b]40.27	10,301	[b]46.83

Month.	1905		1906		1907		1908	
	Deaths	Annual death rate per 1,000.	Deaths.	Annual death rate per 1,000.	Deaths.	Annual death rate per 1,000.	Deaths.	Annual death rate per 1,000.
January	685	[b]36.69	737	[b]39.48	632	[c]33.31	1,117	[c]58.87
February	608	[b]36.05	595	[b]35.28	473	[c]27.60	733	[c]41.29
March	563	[b]30.15	600	[b]32.14	464	[c]24.45	720	[c]37.94
April	530	[b]29.33	555	[b]30.72	416	[c]22.65	626	[c]34.09
May	526	[b]28.17	600	[b]32.14	462	[c]24.35	633	[c]33.36
June	593	[b]32.82	693	[b]38.36	402	[c]21.89	678	[c]36.92
July	747	[b]40.01	1,451	[b]77.72	515	[c]27.14	977	[c]51.49
August	841	[b]45.05	1,182	[b]63.31	653	[c]34.41	1,148	[c]60.50
September	1,013	[b]56.07	835	[b]46.22	768	[c]41.82	1,362	[c]74.17
October	850	[b]45.53	684	[b]36.64	877	[c]46.22	991	[c]52.23
November	944	[b]52.25	653	[b]36.14	725	[c]39.48	837	[c]45.58
December	841	[b]45.05	597	[b]31.98	900	[c]47.43	824	[c]43.42
Total	8,741	[b]39.74	9,182	[b]41.74	7,287	[c]32.59	10,646	[c]47.62

Month.	1909		1910		1911		1912		1913	
	Deaths.	Annual death rate per 1,000.	Deaths.	Annual death rate per 1,000.	Deaths.	Annual death rate per 1,000.	Deaths.	Annual death rate per 1,000.	Deaths.	Annual death rate per 1,000.
January	720	[c]37.94	729	[d]36.64	653	[d]32.82	698	[d]35.09	502	[d]25.23
February	616	[c]35.94	638	[d]35.50	536	[d]29.82	611	[d]32.82	445	[d]24.76
March	618	[c]32.57	642	[d]32.26	574	[d]28.85	732	[d]36.79	451	[d]22.66
April	550	[c]29.95	594	[d]30.85	547	[d]28.40	671	[d]34.85	442	[d]22.95
May	544	[c]28.67	604	[d]30.35	609	[d]30.60	701	[d]35.23	504	[d]25.35
June	552	[c]30.06	646	[d]33.55	693	[d]35.99	605	[d]31.42	442	[d]22.95
July	691	[c]36.41	799	[d]40.15	830	[d]41.71	689	[d]34.63	410	[e]19.49
August	679	[c]35.78	731	[d]36.74	878	[d]44.13	705	[d]35.43	439	[e]20.87
September	649	[c]35.34	664	[d]34.48	741	[d]38.48	661	[d]34.33	529	[e]25.99
October	700	[c]36.89	705	[d]35.43	686	[d]34.48	633	[d]31.81	550	[e]26.15
November	778	[c]42.37	642	[d]33.34	782	[d]40.61	573	[d]29.76	590	[e]28.99
December	839	[c]44.21	635	[d]31.91	698	[d]35.08	540	[d]27.14	600	[e]28.53
Total	7,936	[c]35.50	8,029	[d]34.25	8,227	[d]35.09	7,819	[d]33.35	5,904	[e]23.82

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[a] Death rate computed on population of 244,732 (Health Department's census).
[b] Death rate computed on population of 219,941 (Official census, 1903).
[c] Death rate computed on population of 223,542 (Health census, 1907).
[d] Death rate computed on population of 234,409 (Health census, 1910).
[e] Death rate computed on estimated population of 247,756.

MORTALITY COMPARED WITH SAME PERIOD OF PREVIOUS YEARS.

Year.	First quarter.		Second quarter.		Third quarter.		Fourth quarter.	
	Deaths.	Annual death rate per 1,000.	Deaths.	Annual death rate per 1,000.	Deaths.	Annual death rate per 1,000.	Deaths.	Annual death rate per 1,000.
1901	2,327	38.58	2,410	39.52	2,077	33.69	2,561	41.54
1902	2,236	37.07	4,433	72.70	5,067	82.19	2,715	44.04
1903	1,652	27.39	1,911	31.34	2,710	48.91	3,085	55.68
1904	2,256	41.16	2,314	42.22	2,962	53.46	2,769	49.98
1905	1,856	34.24	1,649	30.09	2,601	46.94	2,635	47.56
1906	1,932	35.64	1,848	33.72	3,468	62.59	1,934	34.90
1907	1,569	28.48	1,280	22.98	1,936	34.38	2,502	44.43
1908	2,570	46.14	1,937	34.77	3,487	61.92	2,652	47.09
1909	1,954	35.47	1,646	29.55	2,019	35.85	2,317	41.14
1910	2,009	34.78	1,844	31.57	2,194	37.15	1.982	33.56
1911	1,763	30.52	1,849	31.65	2.449	41.47	2,166	36.68
1912	2,041	34.94	1,977	33.85	2,055	34.80	1,746	29.57
1913	1,398	24.20	1,388	23.76	1,378	22.08	1,740	27.88

CHOLERA AND PLAGUE, CITY OF MANILA.

Nationality.	Cholera.				Plague.			
	Cases.		Deaths.		Cases.		Deaths.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
Americans	1	1	2		1		1	
Filipinos	93	56	64	40	2		1	
Spaniards								
Other Europeans								
Chinese	1		1					
All others	9		3					
Total	104	57	70	40	3		2	

District and age.	Cholera.		Plague.	
	Cases.	Deaths.	Cases.	Deaths.
Health districts:				
No. 1, Intramuros	17	11	1	1
No. 2, Meisic	68	42		
No. 4, Sampaloc	22	15	1	1
No. 5, Tondo	43	33	1	
No. 6, Paco	11	9		
Total	161	110	3	2
Ages:				
Under 1 year	14	14		
1 year to 10 years	33	28		
10 years to 20 years	22	11		
20 years to 30 years	45	26	1	1
30 years to 40 years	23	12	1	
40 years to 50 years	16	12	1	1
Over 50 years	8	7		
Unknown				
Total	161	110	3	2

Cases found.	Alive.	Dead.
Cholera	97	64
Plague	2	1

SMALLPOX AND VARIOLOID, CITY OF MANILA.

Nationality.	Smallpox.				Varioloid.			
	Cases.		Deaths.		Cases.		Deaths.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
Americans								
Filipinos					29	4		
Spaniards								
Other Europeans								
Chinese								
All others								
Total					29	4		

District and age.	Smallpox.		Varioloid.	
	Cases.	Deaths.	Cases.	Deaths.
Health Districts:				
No. 1, Intramuros			6	
No. 2, Meisic			19	
No. 4, Sampaloc			3	
No. 5 Tondo			4	
No. 6, Paco			1	
Total			33	
Age:				
Under 1 year			1	
1 year to 10 years			1	
10 years to 20 years			13	
20 years to 30 years			12	
30 years to 40 years			5	
40 years to 50 years				
Over 50 years			1	
Unknown				
Total			33	

Cases found.	Alive.	Died.
Smallpox	0	0
Varioloid	33	0

TUBERCULOSIS CASES REPORTED IN MANILA DURING THE HALF YEAR ENDED DECEMBER 31, 1913.[a]

Nationality.	Health districts.										Total.
	No. 1.		No. 2.		No. 4.		No. 5.		No. 6.		
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
Americans	1	1	1								3
Filipinos	32	24	82	69	47	33	103	108	23	17	538
Spaniards	1										1
Other Europeans											
Chinese					1						1
All others			1								1
Total	34	25	84	69	48	33	103	108	23	17	544

[a] Incomplete.

Also reported 80 males and 56 females provincial cases.

RAT CAMPAIGN OPERATIONS.

Spring traps set	255,776
Rats caught with spring traps	23,257
Wire traps set	69,191
Rats caught with wire traps	1,145
Bait set (coconuts)	374,801
Rats found poisoned	615
Rats caught by dogs	17
Rats killed by clubs and other weapons	5,080
Rats found dead from other causes	560
Total rats caught, found poisoned, and found dead	30,674

REPORT OF PRESCRIPTIONS FILLED AT THE CENTRAL FREE DISPENSARY.

Health districts.	Americans.				Foreigners.			
	Adults.		Children.		Adults.		Children.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
No. 1, Intramuros	1,552	250			52			
No. 2, Meisic	35							
No. 4, Sampaloc	32							
No. 5, Tondo	16	1						
No. 6, Paco	10	4						
Total	1,645	255			52			

Health districts.	Filipinos.				Chinese.		Total.
	Adults.		Children.		Adults.		
	Male.	Female.	Male.	Female.	Male.	Female.	
No. 1, Intramuros	5,923	3,557	672	560	5		12,571
No. 2, Meisic	845	529	118	101	2		1,630
No. 4, Sampaloc	658	392	353	184			1,619
No. 5, Tondo	367	246	131	83			844
No. 6, Paco	27	10					51
Total	7,820	4,734	1,274	928	7		16,715

REPORT OF SICK AND WOUNDED POOR ATTENDED BY MUNICIPAL PHYSICIANS.

Health districts and physicians.	Americans.				Foreigners.				Filipinos.			
	Adults.		Children.		Adults.		Children.		Adults.		Children.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
No. 1, Intramuros, Dr. V. Cavanna					17	1			810	826	274	261
No. 2, Meisic, Drs. F. Herrera and C. Reyes	7								179	93	90	39
No. 4, Sampaloc, Dr. F. Castañeda									236	319	189	162
No. 5, Tondo, Drs. V. Pantoja and P. Gabriel	2				1				729	347	370	246
No. 6, Paco:												
Dr. J. B. Cabarrus									45	31	25	16
Dr. Tee Han Kee									7	14	11	8
Total	9				18	1			2,006	1,630	959	732

Report of sick and wounded poor attended by municipal physicians—**Contd.**

Health districts and physicians.	Chinese.				Total.	Cured.		Deaths.		Visits.
	Adults.		Children.							
	Male.	Female.	Male.	Female.		Male.	Female.	Male.	Female.	
No. 1, Intramuros, Dr. V. Cavanna					2,189	455	401	4	6	4,899
No. 2, Meisic, Drs. F. Herrera and C. Reyes	13				421	230	112	2	1	2,061
No. 4, Sampaloc, Dr. F. Castañeda					906	44	57	22	20	1,128
No. 5, Tondo, Drs. V. Pantoja and P. Gabriel	7				1,702	219	70	3	1	3,636
No. 6, Paco:										
Dr. J. B. Cabarrus					117	35	30	2		281
Dr. Tee Han Kee	172		2		214	146	19			871
Total	192		2		5,549	1,129	689	33	28	12,876

REPORT ON THE PHYSICAL DEFECTS IN SCHOOL CHILDREN.

Diseases found.	Boys.	Girls.	Disposition of cases.				Total.
			Excluded.	Sent to dispensary.	No treatment.	Refused treatment.	
To be excluded:							
Pertussis							
Mumps	1			1			1
Tuberculosis	101	100		201			201
Measles							
Contagious eye cases, except trachoma							
Pediculosis with live pediculi							
Scabies	45	33	2	78			78
Contagious skin cases							
Favus	13	2	2	15			15
Other communicable infectious diseases							
Not to be excluded:							
Pediculosis, no live pediculi	4	8		12			12
Adenoids	51	6		51	6		57
Tonsils hypertrophied	95	63		82	76		158
Conjunctivitis acute	134	38		172			172
Trachoma	90	13		103			103
Myopia	109	35		136	8		144
Other eye affections:							
Astigmatism	120	28		145	3		148
Blind	14	4			18		18
Cataract	2			1	1		2
Hordeolum	1	2		3			3
Hypermetropia	14	1		15			15
Opacity cornea	21	6		3	24		27
Pterygium	23	2		19	6		25
Strabismus	15	11		23	3		26
Ulcer cornea		1		1			1
Defects of hearing	377	106		454	29		483
Discharge from one ear	28	6		34			34
Discharge from both ears	8	1		9			9
Adenitis, tubercular	173	80		252	1		253
Tinea	943	264		1,201	6		1,207
Dental caries	1,597	1,021		424	2,194		2,618
Bodily deformities	45	12		11	46		57
Mental defects	1	8			9		9
Backward development	5	5		3	7		10
Other diseases:							
Anæmia	96	55		151			151
Arthritis	7	1		8			8
Asthma	2			2			2
Beriberi	5			5			5
Bronchitis	696	295		990	1		991
Chorea	3			3			3
Chronic aortitis	1			1			1
Chronic parotitis	1			1			1
Dengue	2			2			2
Dysentery	1			1			1
Eczema	7	2		9			9
Epilepsy	2			2			2
Gastritis	82	24		106			106

Report on the physical defects in school children—Continued.

Diseases found.	Boys.	Girls.	Disposition of cases.				Total.
			Excluded.	Sent to dispensary.	No treatment.	Refused treatment.	
Not to be excluded—Continued.							
Other diseases—Continued.							
Goitre		1		1			1
Laryngitis	8			8			8
Leucodema	2			1	1		2
Malaria	5	1		6			6
Migraine		2		2			2
Myalgia	130	53		183			183
Nævus	1	1			2		2
Neurasthenia	1			1			1
Otitis media	3	1		4			4
Pericarditis	1			1			1
Pharyngitis	7	1		8			8
Pleurisy	35	4		38	1		39
Pompholyx		1		1			1
Rhinitis	1			1			1
Synovitis	1			1			1
Tonsillitis	1	1		2			2
Ulcers	6	5		11			11
Valvular lesions	3	2		5			5
Vaccinations required	98	123					221
Vaccinations made							
Total	5,238	2,429	4	5,004	2,442		7,667

Total number of children examined, 19,385.

CITY MORGUE REPORT.

Disposition.	Bodies.	Disposition.	Bodies.
Remaining from last report	30	Transferred to Army morgue	6
Received	431	Transferred to Government Museum (stillbirths)	5
Total	461	Transferred to provinces	8
		Remaining Dec. 31, 1913	35
Buried by city	204		
Buried by family	203	Total	461

DISPOSITION OF DEAD BODIES.

Disposition.	Number.	Disposition.	Number.
Buried:			
Balicbalic cemetery	389	Otherwise disposed of:	
Binondo cemetery	185	Cremated	22
Chinese cemetery	137	Remaining in city morgue	35
Norte cemetery	2,364	Remaining in private morgues	4
Pandacan cemetery:		Shipped to the United States	2
Filipino church	47		
Roman Catholic	19	Transferred to Government Museum (stillbirths)	5
Santa Ana cemetery	57	Transferred to provinces	76
Singalong cemetery	347		
Tondo cemetery	281	Total	[a] 3,970

[a] Of this total, 30 from city morgue and 1 from private morgue, remaining from last report; 15 dead bodies brought from the provinces; 245 were stillbirths; and 1 exhumed from Norte cemetery and reinterred in Chinese cemetery.

DISINTERMENTS.

Cemeteries.	Number.	Cemeteries.	Number.
Balicbalic	6	Pandacan, Roman Catholic	1
Binondo	6	Sampaloc	1
Chinese	52	Santa Ana	3
Malate	3	Santa Cruz	15
Norte	10		
Paco	59	Total	156

GENERAL INSECTIONS OF HOUSES, PREMISES, VAULTS, ETC., WITH IMPROVEMENTS ORDERED, WHITEWASHED, CLEANED, ETC., BY MEDICAL INSPECTORS, SANITARY INSPECTORS, AND ASSISTANT SANITARY INSPECTORS.

1.	Inspections of houses by sanitary inspectors	15,251
2.	Reinspections of houses for verification of work ordered	2,625
3.	Inspections of houses by assistant sanitary inspectors and sanitary policemen	232,552
4.	Reinspections of houses by assistant sanitary inspectors and sanitary policemen	27,548
5.	Houses ordered cleaned (written)	11
6.	Houses ordered cleaned (verbal)	17,921
7.	Houses cleaned	17,819
8.	Houses ordered whitewashed and painted	88
9.	Houses whitewashed and painted	57
11.	Houses recommended condemned and removed	105
12.	Houses condemned and removed	2
13.	Localities where "squatters" are located	
14.	Samples of water, foods, etc., sent to laboratory	8,172
15.	Reports for same	5,481
16.	Fire plugs opened or closed for sanitary purposes	
17.	Hydrants recommended reopened	
18.	Houses where garbage has not been removed for two days	39
19.	Persons reported sick to municipal physicians	7,888
20.	Cesspools and vaults ordered cleaned	63
21.	Cesspools cleaned	62
22.	Yards ordered cleaned	16,767
23.	Yards cleaned	16,682
24.	Yards ordered repaired (repaved, etc.)	29
25.	Yards repaired	28
26.	Cholera cases reported by sanitary inspectors	9
27.	Cholera cases found alive	118
28.	Cholera cases found dead	74
29.	Orders issued during the half year	512
30.	Orders complied with during the half year	363
31.	Orders awaiting action	57
32.	Orders pending in court	
33.	Average number of food tiendas in the districts	2,761
34.	Number of persons convicted for violation of food prohibition orders	224
35.	Average number of regular inspectors on duty	62
36.	Average number of regular emergency inspectors on duty	21
37.	Lepers sent to San Lazaro Hospital	36
38.	Plague cases reported	3
39.	Smallpox cases reported	
40.	Average number of houses in which traps were set	10,874
41.	Average number of houses in which bane was placed	66,862
42.	Average number of traps set	112,470
43.	Average number of plates with rat bane placed	86,776
48.	Average number of rat catchers employed	5

REPORT OF DISINFECTIONS.

Causes for disinfections.	Disinfections.	Contacts.
Acute enteritis probably Asiatic cholera	1	1
Anæmia	1	---------
Angina pectoris	4	22
Appendicitis	1	5
Asthma	2	13
Athrepsia	3	21
Bright's disease	5	21
Bronchitis	55	154
Capillary	6	20
Chronic	20	52
Broncho-pneumonia	19	107
Broncho-pneumonia and infantile beriberi	1	21
Bubonic plague	24	24
Suspected	6	---------
Burns	1	---------
Cancer (?)	1	---------
Cancer of the stomach	1	---------
Carcinoma of uterus	1	---------
Cerebral apoplexy	1	---------
Cerebral congestion	2	11
Cerebral hæmorrhage	6	24
Cholera	123	2, 156
Cholera bacilli carrier	88	336
Cholera, suspected	46	515
Cirrhosis hypertrophic biliary	1	---------
Congenital debility	49	224
Diarrhœa and enteritis	2	12
Chronic	2	---------
Diphtheria	3	11
Dropsy	1	13

Report of disinfections—Continued.

Causes for disinfections.	Disinfections.	Contacts.
Dysentery	17	52
Amœbic	3	26
Bacillary	6	31
Chronic	2	9
Subacute	1	6
Dysentery and cholera suspected	1	16
Endocarditis	1	--------
Enteritis	4	25
Chronic	1	--------
Enterocolitis	3	5
Epilepsy	1	--------
Erysipelas	1	--------
Exhumations	156	--------
Fever collibacillary	4	11
Fleas	2	--------
Flies	1	--------
Fœtus	10	49
Gastro-enteritis	10	50
Chronic	6	20
Gastrointestinal dyspepsia	1	14
General paralysis	1	5
Hæmatemasis and melæna	1	--------
Hæmorrhage uterine, post partum	4	18
Icterus	2	12
Infantile beriberi	109	503
Infantile convulsions	52	184
Insanitary conditions	11,561	35
Intermittent fever	1	8
Intestinal parasites	25	98
Leprosy	23	40
Suspected	1	4
Malarial fever	1	--------
Marasmus	13	99
Measles	1	7
Meningitis	26	157
Cerebral	7	21
Tuberculous	6	50
Mielitis, chronic	1	--------
Mitral insufficiency	2	10
Mosquitoes	6	--------
Myocarditis	1	--------
Nephritis	6	16
Chronic	6	24
Organic diseases of the heart	4	19
Pneumonia	4	18
Pneumonia, plague suspected	2	45
Puerperal septichæmia	2	9
Rabies (?)	1	2
Rats	10	--------
Rheumatism, chronic	3	25
Scarlatina	1	--------
Senile debility	39	166
Septichæmia	1	--------
Suicide	1	--------
Surra	3	--------
Syphilis	1	--------
Tetanus	12	35
Tuberculosis	310	518
Typhoid fever	20	116
Undetermined	4	12
Uremia from nephritis	1	12
Varicella	7	16
Varioloid	7	51
Vermin	84	7
Total	13,080	6,419

REPORT OF ACTION TAKEN ON APPLICATIONS FOR LICENSES.

Kind of license applied for.	Approved.	Disapproved.	Total acted upon.
Liquor:			
First-class bars	41		41
Second-class bars	1		1
First-class bars and restaurants	18		18
Second-class bars and restaurants	8		8
Groceries	36		36
Wholesale	28		28
Druggists	11		11
Theatres	1		1
Hotels	6		6
Restaurants	457	166	623
Lodging houses	16	1	17
Boarding houses	99	12	111
Native wines	1,385	20	1,405
Cooked foods, fruits, vegetables, soft drinks, and bakery products	3,657	95	3,752
Barber shops	494	3	497
Laundries	44	4	48
Billiard and pool tables	19		19
Clubs	40	2	42
Ice cream	117	3	120
Theatres and cinematographs	40	1	41
Bill-posting and advertising agencies	5	1	6
Livery stables	199	5	204
Secondhand articles	102		102
Bakeries	51	4	55
Boil and refine sugar	26	2	28
Boil and sell fat	7		7
Foundry	27	2	29
Dance halls	8		8
Junk shops	42		42
Manufactories	142	15	157
Public vehicles	369	57	426
Pawnbrokers	38		38
Tattooers	15		15
Hot coffee	347	9	356
Boil and sell tallow	1		1
Dry and sell fish	31		31
Gelatine and pastries	19	1	20
Iced mongo	56	1	57
Milk shakes	3		3
White "tajú"	21	3	24
Boarding stables	7		7
Dairies	11		11
Dyeing and cleaning establishments	23		23
Embalmers	3		3
Storage sugar	3		3
Vinegar and sauces	1		1
Grocery stores	29		29
Stock yards	7		7
Fresh milk	1		1
Ferry boats	8		8
Master plumbers	1		1
Iced water	17		17
Tanneries	10		10
Eggs	1		1
Distilleries	8		8
Hot chocolate	172	3	175
Hot tea	173	4	177
Employment agencies	1		1
Auctioneers	3		3
Race tracks	1		1
Undertakers	11		11
Breweries	1		1
Electrical contractors	2		2
Skating rinks	1		1
Draying establishments	4		4
To sell fresh fish		2	2
To store combustible materials	8		8
To conduct slot machine (for traveling)	1		1
Total	8,535	416	8,951

SECTION 2.—STATISTICS FOR THE PHILIPPINE ISLANDS GENERALLY.

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GENERAL RETURN OF BIRTHS AND DEATHS IN THE VARIOUS PROVINCES OF THE PHILIPPINE ISLANDS DURING THE HALF YEAR ENDED JUNE 30, 1913.

Provinces.	Average of population.	Births.	Annual birth-rate per 1,000.	Deaths.														
				Under 30 days.	30 days to under 1 year.	1 year to under 2 years.	2 years to 4 years.	5 years to 9 years.	10 years to 14 years.	15 years to 19 years.	20 years to 29 years.	30 years to 39 years.	40 years to 49 years.	50 years to 59 years.	60 years to 69 years.	70 years and over.	Age not stated.	Total.
Abra	61,274	963	31.71	58	52	27	24	20	9	13	31	28	46	27	18	67		420
Agusan	21,613	306	28.56	28	40	30	20	13	3	2	13	7	9	2	8	13		188
Albay	255,005	6,513	51.53	303	640	295	345	189	91	172	270	199	188	136	163	285	2	3,278
Ambos Camarines	251,868	3,942	31.58	201	330	142	144	103	69	161	231	174	165	145	125	158	3	2,151
Antique	136,464	2,286	33.80	107	205	152	216	88	18	32	85	54	65	48	58	82	3	1,213
Bataan	47,230	1,290	55.11	125	129	60	68	30	12	20	52	44	40	45	40	49		714
Batanes	8,219	130	31.91	23	5	2	3			2	3	5	2	5	11	8		69
Batangas	312,635	7,356	47.47	551	598	247	232	101	61	104	126	135	211	163	143	346	4	3,022
Bohol	269,223	5,462	40.93	279	450	219	186	131	72	72	136	94	133	111	126	319	10	2,338
Bulacan	225,757	5,339	47.72	381	619	169	127	71	45	75	188	154	169	149	128	273		2,548
Cagayan	143,338	2,862	40.29	216	287	147	178	95	46	62	83	107	103	116	109	172		1,711
Capiz	211,748	3,760	35.83	215	453	349	513	331	84	77	131	105	125	131	132	266		2,912
Cavite	137,520	3,457	50.72	287	334	130	141	45	21	36	131	115	80	78	88	145		1,631
Cebu	673,695	14,370	43.04	484	780	469	442	299	156	229	233	248	324	314	283	643	28	4,932
Ilocos Norte	174,643	3,660	42.29	190	178	91	110	65	28	46	73	106	103	103	116	178		1,387
Ilocos Sur	170,976	3,941	46.51	275	185	73	100	52	33	46	68	80	115	82	93	137		1,339
Iloilo	420,702	8,418	40.37	343	771	537	714	339	136	134	303	233	205	182	185	274		4,356
Isabela	73,798	1,687	46.12	62	111	66	57	51	35	26	93	59	56	50	54	57		777
Laguna	149,527	4,320	58.29	396	481	187	136	67	33	55	153	153	151	145	120	177	7	2,261
Leyte	520,922	8,474	32.82	280	1,086	615	821	628	209	188	305	246	228	179	174	270	1	5,280
Misamis	132,601	2,792	42.48	189	255	101	148	78	46	73	154	94	89	77	59	69	1	1,433
Nueva Ecija	132,999	3,589	54.45	260	328	189	126	78	39	48	94	112	102	87	80	156	33	1,732
Nueva Vizcaya	22,002	514	47.09	26	46	10	34	14	6	14	22	26	26	23	19	31		297
Occidental Negros	304,668	4,775	31.62	317	590	421	482	199	88	124	132	161	257	197	167	355	23	3,513
Oriental Negros	184,889	3,170	34.59	143	280	155	121	108	40	66	72	64	117	119	102	224	7	1,618
Palawan	21,459	253	23.79	13	12	14	8	2	4	5	7	5	7	6	6	12	8	109
Pampanga	225,113	6,071	54.42	549	632	210	175	91	29	62	140	147	140	132	130	250		2,687
Pangasinan	441,816	10,702	48.87	729	846	476	520	306	165	199	459	387	350	244	249	479	7	5,416
Rizal	152,084	4,072	54.02	364	518	125	129	57	30	50	137	143	127	111	97	193	22	2,103
Romblon	57,317	883	31.08	32	129	102	82	70	43	33	58	52	56	36	39	58		790
Surigao	83,946	1,054	25.33	66	82	54	70	37	17	25	36	26	35	26	40	43	1	558
Tarlac	139,971	3,797	54.73	267	356	213	162	95	28	43	138	119	95	76	60	127	2	1,781
Tayabas	201,936	4,128	41.25	309	386	149	160	94	59	86	116	131	225	153	140	311	20	2,339
Union	132,221	2,712	41.38	145	169	88	84	46	23	34	43	47	63	53	52	157	6	1,010
Zambales	57,442	1,530	53.74	133	86	85	80	61	13	18	42	43	44	38	25	66	1	735
Total and average	6,556,621	138,578	42.64	8,346	12,449	6,399	6,958	4,054	1,791	2,422	4,358	3,903	4,251	3,589	3,439	6,450	189	68,598

GENERAL RETURN OF BIRTHS AND DEATHS (WITH CAUSES) IN THE VARIOUS PROVINCES OF THE PHILIPPINE ISLANDS DURING THE HALF YEAR ENDED JUNE 30, 1913.

Causes of death.	Abra.	Agusan.	Albay.	Ambos Camarines.	Antique.	Bataan.	Batanes.
Typhoid fever		12	3	9	4	16	
Typhus fever				1	1	2	
Malarial fever	178	28	465	478	241	36	
Malarial cachexia	23	9	38	6	2	32	
Smallpox		9					
Measles		14	6	1	146		
Whooping cough	14	1	67	34	11	2	
Diphtheria and croup				13			
Dysentery		18	247	106	166	10	4
Leprosy					1		
Beriberi		4	69	42	1	11	
Tuberculosis of the lungs	67	3	320	303	164	65	6
Tuberculosis of other organs	1	7	34	35	20		
Cancer and other malignant tumors		1	6	5		2	1
Cerebral hæmorrhage, apoplexy	5	3	9	16	1	2	1
Convulsions of infants (under 5 years)	7	17	252	241	38	142	3
Acute bronchitis	12	2	136	30	26	14	
Diarrhœa and enteritis:							
Under 2 years		10	28	26	35	4	
2 years and over	4	2	31	34	35	2	
Diseases of the puerperal state	3	3	92	49	16	13	
Violence:							
Suicide			4	8	2	1	
Not suicide	8	3	12	15	7	3	
Homicide			3			1	
All other causes of death	98	42	1,456	699	296	356	54
Total	420	188	3,278	2,151	1,213	714	69
Males	214	97	1,721	1,120	657	358	33
Females	206	91	1,557	1,031	556	356	36
Annual death rate per 1,000	13.83	17.55	25.93	17.23	17.93	30.50	16.94
CLASSIFIED REPORT OF ALL DEATHS OCCURRING.							
Males:							
Married	71	23	333	298	110	78	7
Widowers	21	5	138	130	52	43	1
Divorced						1	
Single	8	8	206	178	48	30	7
Boys	113	61	1,040	510	438	206	18
Condition not stated	1		4	4	9		
Females:							
Married	68	18	334	260	104	77	8
Widows	38	10	222	158	68	42	10
Divorced					6		
Single	10	4	178	132	54	19	3
Girls	90	58	823	479	324	218	15
Condition not stated		1		2			

Causes of death.	Batangas.	Bohol.	Bulacan.	Cagayan.	Capiz.	Cavite.	Cebu.
Typhoid fever	60	21	22		15	11	126
Typhus fever	6	1			1	2	2
Malarial fever	201	90	247	247	481	135	228
Malarial cachexia	71		22	36	36	48	177
Smallpox						4	19
Measles	21	7	1		333	1	47
Whooping cough	20	50	2		51	8	118
Diphtheria and croup	9		2	10	8		
Dysentery	59	12	33	43	644	31	191
Leprosy				1			
Beriberi	98	25		38	46	45	216
Tuberculosis of the lungs	334	129	395	142	237	127	260
Tuberculosis of other organs	17	42	22	31	17	10	160
Cancer and other malignant tumors	12	24	20	4	3	8	61
Cerebral hæmorrhage, apoplexy	14		20	5	7	10	15
Convulsions of infants (under 5 years)	495	91	812	256	87	378	274
Acute bronchitis	127	12	56	34	26	38	27
Diarrhœa and enteritis:							
Under 2 years	75	8	20	25	69	40	130
2 years and over	26	5	22	24	32	45	103
Diseases of the puerperal state	70	32	47	22	24	32	65

General return of births and deaths (with causes), etc.—Continued.

Causes of death.	Batangas.	Bohol.	Bulacan.	Cagayan.	Capiz.	Cavite.	Cebu.
Violence:							
Suicide	3	3	5	1	1	6	17
Not suicide	29	27	24	19	34	13	29
Homicide	6	1	-------	3	1	-------	7
All other causes of death	1,269	1,758	776	770	759	639	2,660
Total	3,022	2,338	2,548	1,711	2,912	1,631	4,932
Males	1,551	1,226	1,369	904	1,495	928	2,674
Females	1,471	1,112	1,179	807	1,417	703	2,258
Annual death rate per 1,000	19.48	17.52	22.77	24.08	27.75	23.93	14.77
CLASSIFIED REPORT OF ALL DEATHS OCCURRING.							
Males:							
Married	367	273	351	239	282	199	672
Widowers	96	91	142	95	113	91	221
Single	112	98	117	74	102	72	303
Boys	968	762	759	495	996	563	1,478
Condition not stated	8	2	-------	1	2	3	-------
Females:							
Married	376	250	291	158	220	173	512
Widows	174	144	168	140	183	100	293
Single	103	148	79	56	105	35	313
Girls	818	568	641	452	909	395	1,140
Condition not stated	-------	2	-------	1	-------	-------	-------

Causes of death.	Ilocos Norte.	Ilocos Sur.	Iloilo.	Isabela.	Laguna.	Leyte.	Misamis.
Typhoid fever	-------	-------	17	-------	58	79	55
Typhus fever	-------	-------	-------	-------	5	38	10
Malarial fever	345	316	191	95	211	590	343
Malarial cachexia	-------	-------	49	57	65	75	79
Smallpox	-------	-------	-------	-------	-------	447	6
Measles	-------	-------	133	-------	1	48	17
Whooping cough	11	6	105	6	5	326	54
Diphtheria and croup	-------	-------	47	-------	4	-------	-------
Dysentery	26	26	486	28	73	334	105
Leprosy	-------	1	1	1	-------	1	-------
Beriberi	11	7	16	22	5	11	66
Tuberculosis of the lungs	212	212	645	76	56	239	105
Tuberculosis of other organs	1	-------	34	1	294	283	28
Cancer and other malignant tumors	-------	-------	12	5	9	22	16
Cerebral hæmorrhage, apoplexy	1	6	15	1	18	5	2
Convulsions of infants (under 5 years)	172	165	855	89	449	245	94
Acute bronchitis	-------	6	71	31	42	65	1
Diarrhœa and enteritis:							
Under 2 years	10	14	206	18	27	94	23
2 years and over	46	25	235	4	1	35	4
Diseases of the puerperal state	25	34	51	6	47	73	19
Violence:							
Suicide	6	6	3	4	3	107	6
Not suicide	7	5	24	7	17	20	11
Homicide	-------	-------	2	2	3	-------	-------
All other causes of death	514	510	1,158	324	868	2,093	389
Total	1,387	1,339	4,356	777	2,261	5,230	1,483
Males	723	720	2,355	446	1,195	2,866	782
Females	664	619	2,001	331	1,066	2,364	651
Annual rate per 1,000	16.02	15.80	20.89	21.24	30.51	20.25	21.80
CLASSIFIED REPORT OF ALL DEATHS OCCURRING.							
Males:							
Married	237	186	396	126	295	409	186
Widowers	69	68	232	47	103	167	55
Single	76	63	144	50	65	254	94
Boys	341	403	1,577	223	705	2,031	438
Condition not stated	-------	-------	6	-------	27	5	9
Females:							
Married	196	178	308	88	256	368	166
Widows	125	95	258	49	196	212	49
Single	64	84	151	27	45	171	51
Girls	279	261	1,278	167	555	1,608	379
Condition not stated	-------	1	6	-------	14	5	6

General return of births and deaths (with causes), etc.—Continued.

Causes of death.	Nueva Ecija.	Nueva Vizcaya.	Occidental Negros.	Oriental Negros.	Palawan.	Pampanga.	Pangasinan.
Typhoid fever		12	15	9	1	19	92
Typhus fever	11	3	6	2			
Malarial fever	215	57	286	188	1	305	724
Malarial cachexia	64	19	34	13		72	143
Smallpox			1				
Measles			251	6		8	12
Whooping cough	8		13	50		1	17
Diphtheria and croup			64				
Dysentery	61	5	363	73	1	31	101
Leprosy							1
Beriberi		3	56	57	3	66	46
Tuberculosis of the lungs	194	25	365	127	10	342	698
Tuberculosis of other organs	11	2	43	47	1	4	86
Cancer and other malignant tumors	2		9	11		9	10
Cerebral hæmorrhage, apoplexy	1		9			15	27
Convulsions of infants (under 5 years)	327	47	500	83	6	695	968
Acute bronchitis	15	1	13	21	1	36	83
Diarrhœa and enteritis:							
Under 2 years	69		94	58	1	36	62
2 years and over	77	1	96	23	1	44	47
Diseases of the puerperal state	39	8	21	23	3	47	109
Violence:							
Suicide	3		3	10		2	1
Not suicide	10	4	36	17	1	20	56
Homicide	6		2	6	1		8
All other causes of death	619	110	1,233	794	78	935	2,125
Total	1,732	297	3,513	1,618	109	2,687	5,416
Males	938	175	1,989	881	67	1,425	2,933
Females	794	122	1,524	737	42	1,262	2,483
Annual death rate per 1,000	26.27	27.23	23.26	17.65	10.24	24.08	24.73
CLASSIFIED REPORT OF ALL DEATHS OCCURRING.							
Males:							
Married	214	76	355	201	13	291	764
Widowers	81	18	185	97	5	107	266
Single	67	16	164	98	4	109	214
Boys	525	64	1,179	484	35	918	1,686
Condition not stated	51	1	106	1	10		3
Females:							
Married	155	34	292	164	9	272	678
Widows	115	14	188	121	10	162	354
Single	45	12	85	91	8	65	130
Girls	443	59	918	355	14	761	1,319
Condition not stated	36	3	41	6	1	2	2

Causes of death.	Rizal.	Romblon.	Surigao.	Tarlac.	Tayabas.	Union.	Zambales.
Typhoid fever	28	39		14	60	18	2
Typhus fever	3	1			11		2
Malarial fever	75	71	22	118	249	89	46
Malarial cachexia	39	16	2	46	71	56	5
Smallpox			1		1	1	
Measles	2	16	18	6	3		5
Whooping cough	11	1	11	22	5	16	7
Diptheria and croup		1					4
Dysentery	17	105	75	33	76	6	52
Leprosy					1		
Beriberi	111	23		64	121	18	3
Tuberculosis of the lungs	214	47	28	205	301	71	69
Tuberculosis of other organs	56	14	11	13	24	13	60
Cancer and other malignant tumors	16	2	1	1	16	7	1
Cerebral hæmorrhage, apoplexy	19	4	4	15	26	5	
Convulsions of infants (under 5 years)	506	3	5	386	207	168	137
Acute bronchitis	78	14	3	35	61	41	2
Diarrhœa and enteritis:							
Under 2 years	51	5	1	31	43	2	11
2 years and over	50	15		17	30	3	4
Diseases of the puerperal state	28	15	18	36	47	24	11

General return of births and deaths (with causes), etc.—Continued.

Causes of death.	Rizal.	Romblon.	Surigao.	Tarlac.	Tayabas.	Union.	Zambales.
Violence:							
Suicide	3	3	1	2	8		1
Not suicide	25	7	2	14	24	9	7
Homicide					8	3	
All other causes of death	771	388	355	723	946	460	306
Total	2,103	790	558	1,781	2,339	1,010	735
Males	1,136	409	306	955	1,190	563	394
Females	967	381	252	826	1,149	447	341
Annual death rate per 1,000	27.90	27.81	13.41	25.67	23.37	15.41	25.82
CLASSIFIED REPORT OF ALL DEATHS OCCURRING.							
Males:							
Married	289	98	72	203	352	138	78
Widowers	77	46	17	86	103	59	33
Single	69	48	34	56	108	37	31
Boys	684	216	183	610	605	329	252
Condition not stated	17	1			22		
Females:							
Married	218	79	59	177	348	112	78
Widows	157	51	30	103	186	69	45
Divorced	2						
Single	40	34	16	35	93	40	14
Girls	544	214	147	511	506	226	203
Condition not stated	6	3			16		1

CHOLERA IN THE PROVINCES.

Towns.	Cases.	Deaths.	Mortality.
Bataan:			*Per ct.*
Orani	1		
Orion	1	1	
Pilar	1	1	
Total	3	2	66.66
Bulacan:			
Bocaue	1	1	
Meycauayan	1	1	
Total	2	2	100.00
Capiz:			
Banga	11	7	
Calivo	15	10	
New Washington	3	3	
Total	29	20	68.96
Cavite:			
Bacoor	2	1	
Cavite	4	1	
Rosario	1		
Santa Cruz	5		
Total	12	2	16.66
Cebu:			
Cebu	2	1	
Opon	1	1	
Total	3	2	66.66
Pampanga:			
Angeles	1		
Guagua	2	1	
Macabebe	4	3	
Mexico	1		
San Fernando	2	2	
Santa Ana	4	2	
Sexmoan	4	4	
Total	18	12	66.66

Cholera in the provinces—Continued.

Towns.	Cases.	Deaths.	Mortality.
Pangasinan:			*Per ct.*
Asingan	3	3	
Dagupan	12	9	
Lingayen	7	5	
Santa Barbara	5	3	
Urdaneta	2	1	
Total	29	21	72.41
Rizal:			
Caloocan	4	3	
Fort McKinley	1		
Las Piñas	1		
Navotas	1	1	
Parañaque	2	2	
Pasay	7	4	
Pasig	32	21	
Pateros	8	7	
San Felipe Neri	5	1	
San Pedro Macati	1	1	
Tayug	6	6	
Total	68	46	67.64
Tayabas: Lucena	1		

SUMMARY.

Provinces.	Cases.	Deaths.
Bataan	3	2
Bulacan	2	2
Capiz	29	20
Cavite	12	2
Cebu	3	2
Pampanga	18	12
Pangasinan	29	21
Rizal	68	46
Tayabas	1	
Total	165	107

NOTE.—The information in this table is based upon corrected and revised reports.

REPORTS RECEIVED OF BLIND PERSONS LIVING IN THE VARIOUS PROVINCES OF THE PHILIPPINE ISLANDS.

Provinces.	Race.	Number of—		Children.		Single.		Married.		Widowed.		Total.
		Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
Abra	Filipino	20	20			6	4	9	8	5	8	40
Agusan	do	10	7	1	1	7	4	2	2			17
Albay	do	126	93	10	8	71	54	38	10	7	21	219
Ambos Camarines	do	72	49	9	4	27	28	19	3	17	14	121
Antique	do	56	44	3	4	25	19	18	7	10	14	100
Bataan	do	39	17	1	1	16	11	18		4	5	56
Batanes	do	13	36	1	1	1	9	6	7	5	19	49
Batangas	do	104	74	7	5	45	34	40	19	12	16	178
Bohol	do	152	104	15	1	73	70	50	17	14	16	256
Bulacan	do	61	62	4	4	28	29	22	12	7	17	123
Cagayan	do	68	50	7	3	24	17	31	15	6	15	118
Capiz	do	87	85	3	2	30	27	36	24	18	32	172
Cavite	do	65	62	11	6	25	27	22	14	7	15	127
Cebu	do	77	69	3	19	44	26	21	9	9	15	146
Ilocos Norte	do	44	51	2	1	8	17	24	8	10	25	95
Ilocos Sur	do	77	68	8	6	38	22	21	17	10	23	145
Iloilo	do	153	127	8	5	72	54	54	28	19	40	280
Isabela	do	22	24			5	5	11	7	6	12	46
Laguna	do	56	40	9	6	26	16	15	5	6	13	96
Leyte	do	107	52	8	5	60	28	30	7	9	12	159
Misamis	do	93	62	6	4	42	18	37	22	8	18	155
Mountain [a]	do	49	32									81

[a] Revised report not received.

Reports received of insane persons living in the various provinces of the Philippine Islands—Continued.

Provinces.	Race.	Number of—		Children.		Single.		Married.		Widowed.		Total.
		Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
Nueva Ecija	do	52	38	6	2	17	11	20	6	9	19	90
Nueva Vizcaya	do	17	8	3	1	7	2	4	1	3	4	25
Occidental Negros	do	99	71	6	2	58	41	15	16	20	12	170
Oriental Negros	do	86	55	4	3	48	26	25	12	9	14	141
Palawan	do	4	3			1	3	2		1		7
Pampanga	do	132	100	12	10	57	39	46	23	17	28	232
Pangasinan	do	133	115	13	9	54	49	48	31	18	26	248
Rizal	do	81	57	4	5	25	24	38	16	14	12	138
Romblon	do	25	16	4	1	9	9	12	2		4	41
Samar	do	54	35	10	2	30	24	11	5	3	4	89
Surigao	do	23	4	2		9	2	11	1	1	1	27
Tarlac	do	47	49	7	4	10	15	19	14	11	16	96
Tayabas	do	76	46	6	5	39	25	26	5	5	11	122
Union	do	36	32	5	2	13	9	12	6	6	15	68
Zambales	do	33	26	2	1	14	9	12	6	5	10	59
Total		2,449	1,883	200	133	1,064	807	825	385	311	526	4,332

REPORTS RECEIVED OF INSANE PERSONS LIVING IN THE VARIOUS PROVINCES OF THE PHILIPPINE ISLANDS.

Provinces.	Race.	Number of—		Children.		Single.		Married.		Widowed.		Total.
		Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
Abra	Filipino	31	25	2	2	19	10	8	9	2	4	56
Agusan	do	10	10			6	3	4	6		1	20
Albay	do	45	52			38	33	5	11	2	8	97
Ambos Camarines	do	35	42	1	1	30	24	2	9	2	8	77
Antique	do	49	33			31	14	17	13	1	6	82
Bataan	do	19	14			11	6	5	4	3	4	33
Batanes	do	17	7			15	6	2			1	24
Batangas	do	61	48			38	29	19	8	4	11	109
Bohol	do	214	167	3		166	138	34	24	11	5	381
Bulacan	do	41	29		1	27	13	8	9	6	6	70
Cagayan	do	31	25	2		17	11	7	12	5	2	56
Capiz	do	72	64	3		36	29	25	18	8	17	136
Cavite	do	39	39			22	15	8	14	9	10	78
Cebu	do	211	132	1		176	107	28	19	6	6	343
Hospicio de San Jose[a]		44	39									83
Ilocos Norte	Filipino	80	33		1	55	19	23	8	2	5	113
Ilocos Sur	do	100	59	1	1	69	33	22	17	8	8	159
Iloilo	do	78	73	1		60	43	15	15	2	15	151
Isabela	do	10	7			3	3	7	2		2	17
Laguna	do	29	36			20	11	8	12	1	13	65
Leyte	do	64	28	2		49	19	10	7	3	2	92
Misamis	do	76	43	4		49	33	15	4	8	6	119
Nueva Ecija	do	29	23			24	12	4	8	1	3	52
Nueva Vizcaya	do	13	13	1	2	8	6	3	2	1	3	26
Occidental Negros	do	54	38	1		38	18	7	12	8	8	92
Oriental Negros	do	112	60		2	87	44	18	10	7	4	172
Palawan	do	5	4			4	2		2	1		9
Pampanga	do	23	30			14	10	6	11	3	9	53
Pangasinan	do	150	103	1	5	76	41	54	35	19	22	253
Rizal	do	43	27			27	12	12	10	4	5	70
Romblon	do	9	4			4	1	2	2	3	1	13
Samar	do	47	26	1	1	36	15	9	8	1	2	73
San Lazaro Hospital[b]		228	52	1	1	124	17	83	24	20	10	280
Surigao	Filipino	11	2			6		3	2	2		13
Tarlac	do	3	4			1	4	2				7
Tayabas	do	127	90	5	5	102	59	15	20	5	6	217
Union	do	40	33		1	19	21	16	8	5	3	73
Zambales	do	16	21	3		9	10	4	7		4	37
Total		2,266	1,535	33	23	1,516	871	510	382	163	220	3,801

[a] Europeans, 8; Filipinos, 75; total, 83.
[b] Americans, 5; Europeans, 3; Filipinos, 267; Chinese, 3; others, 2; total, 280.

REPORT OF LEPERS LIVING IN THE PHILIPPINE ISLANDS.

	Race.	Number of—		Children.		Single.		Married.		Widowed.		Total.
		Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
Culion leper colony [a]	Filipino	2,086	1,212	375	203	682	292	937	576	92	141	3,298
San Lazaro Hospital [b]	do	55	21	5	3	24	7	22	6	4	5	76
Moro Province [c]	do											25
Estimated number not yet transferred to Culion	do	30	13	3	2	11	3	15	6	1	2	43
Total		2,171	1,246	383	208	717	302	974	588	97	148	3,442

[a] Americans, 1; Europeans, 2; Filipinos, 3,275; Chinese, 2; others, 18; total, 3,298.

[b] Europeans, 1; Filipinos, 75; total, 76.

[c] Revised report not received.

REPORT OF SERA.

	Bottles.	Units.
On hand July 1, 1913	99	
Received from the Bureau of Science		1,025,523
Total to be accounted	99	1,025,523
Issued		1,025,523
Condemned		
Remaining after Dec. 31, 1913	99	

AMOUNT OF VACCINE VIRUS DISTRIBUTED BY THE BUREAU OF HEALTH.

	Units.
Amount on hand July 1, 1913	34,700
Received from the Bureau of Science	1,317,000
Total to be accounted for	1,351,700
Distributed as per itemized statement	1,322,200
Remaining Dec. 31, 1913	29,500

PLACES AT WHICH VACCINE VIRUS WAS DISTRIBUTED.

Provinces:	Units.
Albay	59,900
Ambos Camarines	29,900
Bataan	2,500
Batangas	44,000
Bulacan	53,800
Cagayan	20,000
Cavite	4,300
Cebu	440,000
Culion leper colony division	100
Ilocos Norte	38,200
Ilocos Sur	55,100
Iloilo	120,000
Isabela	25,000
Laguna	11,000
Leyte	142,000
Masbate	1,000
Mindoro	5,200
Mountain	10,400
Nueva Ecija	6,200
Nueva Vizcaya	10,000
Palawan	7,000
Provinces—Continued.	Units.
Pampanga	42,600
Pangasinan	48,000
Rizal	5,500
Samar	25,100
Sorsogon	18,000
Surigao	1,000
Tarlac	5,200
Tayabas	20,000
Union	55,000
Zambales	6,500
Total	1,312,500
Manila:	
Health districts	2,700
Other institutions	7,000
Total	9,700
Grand total	1,322,200

VACCINATIONS.

[Closed Jan. 13, 1914.]

	Vaccinations.	Inspections.	Positive.	Negative.
City of Manila:				
Health district No. 1, Intramuros	7			
Health district No. 2, Meisic				
Health district No. 4, Sampaloc				
Health district No. 5, Tondo	56			
Health district No. 6, Paco				
Total	63			
Provinces:				
Agusan	10,675	4,146	2,695	1,451
Albay	29,345	21,181	16,909	4,272
Ambos Camarines	33,118	11,541	8,871	2,670
Bataan	2,290	2,162	1,503	659
Batangas	41,824	29,774	20,046	9,728
Bohol	27,014	19,713	10,787	8,926
Cagayan	8,385	2,349	1,377	972
Cavite	4,246	4,014	2,803	1,211
Cebu	163,600	51,883	33,331	18,552
Ilocos Sur	3,118	2,665	1,398	1,267
Laguna	5,767	5,413	2,819	2,594
Misamis	17,368	12,292	7,122	5,170
Mountain	1,164	1,039	861	178
Nueva Vizcaya	7,046	5,987	5,639	348
Occidental Negros	26,912	9,561	6,192	3,369
Oriental Negros	19,986	14,808	9,819	4,989
Palawan	854	567	173	394
Pampanga	33,165	30,652	19,649	11,003
Pangasinan	21,568	18,379	13,478	4,901
Rizal	6,920	6,104	3,294	2,810
Sorsogon	4,489	2,696	1,280	1,416
Tarlac	4,548	4,224	2,756	1,468
Union	19,096	14,681	8,415	6,266
Zambales	7,088	5,036	3,296	1,740
Total	499,586	280,867	184,513	96,854
Grand total:				
Manila	63			
Provinces	499,586	280,867	184,513	96,354
Total	499,649	280,867	184,513	96,354

These vaccinations were made during the half year ended December 31, 1913, in the provinces already systematically vaccinated and include persons previously unsuccessfully vaccinated and unvaccinated persons and children.

RETURNS OF VACCINATIONS FROM THE PROVINCE WHERE SYSTEMATIC VACCINATIONS WERE YET UNCOMPLETED DURING THE HALF YEAR ENDED DECEMBER 31, 1913.

[Closed Jan. 13, 1914.]

Province.	Period.		Vaccinations.	Inspections.	Vaccinations.		Average vaccinations per 1,000 population.
	From—	To—			Succesful.	Unsuccessful.	
Leyte	May 1, 1910	Nov. 30, 1913	484,887	242,722	171,625	87,099	1,246.74

MORTALITY AMONG GOVERNMENT EMPLOYEES.

	Americans.	Filipinos.
Average number of employees	2,485	7,073
Deaths reported:		
From illness	8	17
From violence	1	1
Total	9	18
Deaths from illness:		
Average years of service	7.42	5.98
Average age at death ...years	43.86	33.13
Annual death rate per 1,000	6.39	4.77
Deaths from violence:		
Average years of service	.01	6.64
Average age at death ...years	29.65	39.00
Annual death rate per 1,000	.79	.28
All deaths:		
Average years of service	6.77	6.82
Average age at death ...years	43.04	33.06
Annual death rate per 1,000	7.18	5.05
Both nationalities:		
Population	9,558	
Number of deaths	27	
Average years of service	6.95	
Average age at death	36.18	
Annual death rate per 1,000	5.60	

SECTION 3.—STATISTICS OF HOSPITAL AND OTHER DIVISIONS OF THE BUREAU OF HEALTH.

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BAGUIO HOSPITAL DIVISION.

HOSPITAL CASES.

Diseases.	Remaining at last report.	Admitted.	Died.	Transfered.	Discharged.	Escaped.	Remaining.
1. Typhoid fever		4			4		
4. Malaria		10			9		1
6. Measles		13			13		
10. Influenza		14			14		
14. Dysentery		18	2		16		
19. Other epidemic diseases		6			6		
20. Purulent infection and septichæmia		1	1				
28. Tuberculosis of the lungs		5	2		1		2
34. Tuberculosis of other organs		2			2		
37b. Syphilis, secondary		1			1		
37c. Syphilis, tertiary		3			3		
38. Gonococcus infection		6			6		
46. Other tumors (tumors of the female genital organs excepted)		1			1		
47. Acute articular rheumatism		1			1		
56. Alcoholism (acute or chronic)		1			1		
66. Paralysis without specified cause		2					2
73. Neuralgia and neuritis		2			2		
74. Other diseases of the nervous system		1					1
75. Diseases of the eyes and their annexa		4			4		
76. Diseases of the ears		3			3		
79. Organic diseases of the heart		8	6		2		
83. Diseases of the veins (varices, hæmorrhoids, phlebitis, etc.)		2			2		
84. Diseases of the lymphatic system (lymphangitis etc.)		2			2		
86. Diseases of the nasal fossae		7			7		
89. Acute bronchitis		26	2		24		
90. Chronic bronchitis		1			1		
91. Broncho-pneumonia		3	1		2		
92. Pneumonia		11	4		6		1
93. Pleurisy		2			2		
99a. Diseases of the teeth and gums		1			1		
100. Diseases of the parynx		4			4		
103. Other diseases of the stomach (cancer excepted)		14			14		
104. Diarrhœa and enteritis (under 2 years)		1			1		
105. Diarrhœa and enteritis (2 years and over)		8			8		
107. Intestinal parasites		12			12		
108. Appendicitis and typhlitis		1			1		
109. Hernia, intestinal obstruction		1			1		
110b. Other diseases of the intestines		2			2		
115. Other diseases of the liver		1	1				
117. Simple peritonitis (nonpuerperal)		1	1				
120. Bright's disease		5	2		3		
123. Calculi of the urinary passages		2	2				
124. Diseases of the bladder		5	2		1		2
127. Nonvenereal diseases of the male genital organs		1			1		
130. Other diseases of the uterus		3			3		
134a. Normal labor		10			10		
134b. Accidents of pregnancy		5			5		
136. Other accidents of labor		8			8		
138. Puerperal albuminuria and convulsions		2			2		
144. Acute abscess		7	1		6		
145a. Trichophytosis		1			1		
145b. Scabies		3			2		1
145c. Other diseases of the skin and annexa		14			11		3
149. Other diseases of the organs of locomotion		2			2		
150. Congenital malformations (stillbirth not included)		1			1		
151a. Nurslings discharged from hospital without disease		14			14		
151b. Congenital debility, icterus, and sclerema		2	2				
154. Senility		2	2				
155. Suicide by poison		1			1		
165. Other acute poisonings		1			1		
167. Burns (conflagration excepted)		2					2
171. Traumatism by cutting or piercing instruments		19			19		
172. Traumatism by fall		5			5		
174. Traumatism by machines		1			1		
175. Traumatism by other crushing (vehicles, railways, landslides, etc.)		15	2		11		2
184. Homicide by other means		7			7		
185. Fractures		9			7		2
185a. Dislocations		1	1				
185b. Sprains		3			2		1
186. Other external violence		1			1		
189b. No disease, feigned disease		2			2		
Total		360	34		306		20

Baguio hospital division—Continued.

OUTDOOR CLINIC.

Diseases.	Cases.
4. Malaria	12
6. Measles	11
10. Influenza	24
14. Dysentery	2
19. Other epidemic diseases	11
27. Beriberi	1
28. Tuberculosis of the lungs	22
34. Tuberculosis of other organs	1
37b. Syphilis, secondary	1
37c. Syphilis, tertiary	4
38. Gonococcus infection	28
46. Other tumors (tumors of the female genital organs excepted)	2
47. Acute articular rheumatism	6
51. Exophthalmic goitre	3
73. Neuralgia and neuritis	6
74. Other diseases of the nervous system	3
75. Diseases of the eyes and their annexa	47
76. Diseases of the ears	13
79. Organic diseases of the heart	10
81. Diseases of the arteries, atheroma, aneurism, etc	1
83. Diseases of the veins (varices, hæmorrhoids, phlebitis, etc.)	5
84. Diseases of the lymphatic system (lymphangitis, etc.)	5
85. Hæmorrhage; other diseases of the circulatory system	2
86. Diseases of the nasal fossæ	77
87. Diseases of the larynx	14
89. Acute bronchitis	272
90. Chronic bronchitis	7
93. Pleurisy	4
96. Asthma	1
99a. Diseases of the teeth and gums	100
99b. Other diseases of the mouth and annexa	6
100. Diseases of the pharynx	15
102. Ulcer of the stomach	1
103. Other diseases of the stomach (cancer excepted)	97
104. Diarrhœa and enteritis (under 2 years)	4
105. Diarrhœa and enteritis (2 years and over	24
107. Intestinal parasites	9
109. Hernia, intestinal obstruction	2
110. Other diseases of the intestines	106
120. Bright's disease	4
124. Diseases of the bladder	7
127. Nonvenereal diseases of the male genital organs	8
128. Uterine hæmorrhage (nonpuerperal)	7
130. Other diseases of the uterus	10
132. Salpingitis and other diseases of the female genital organs	5
134. Accident of pregnancy	4
141. Puerperal diseases of the breast	1
143. Furuncle	21
144. Acute abscess	15
145a. Trichophytosis	10
145b. Scabies	79
145c. Other diseases of the skin and annexa	103
149. Other diseases of the organs of locomotion	62
151b. Congenital debility, icterus and sclerema	1
165. Other acute poisonings	2
167. Burns (conflagration excepted)	5
171. Traumatism by cutting or piercing instruments	82
172. Traumatism by fall	10
175. Traumatism by other crushing (vehicles, railways, landslides, etc.)	2
176. Injuries by animals	3
184. Homicide by other means	1
185a. Dislocations	1
185b. Sprains	14
185c. Fractures	4
186. Other external violence	34
189a. Cause of death not specified or ill-defined	2
Total	1,456

MISCELLANEOUS SUMMARY.

Patients remaining June 30, 1913	26
Patients admitted July 1, 1913, to Dec. 31, 1913	297
Total number of hospital cases July 1 to Dec. 31, 1913	323
Patients remaining Dec. 31, 1913	13
Total number of—	
Persons accompanying patients in hospital	17
Visits to hospital clinic	2,511
Patients attending hospital clinic	1,454
Surgical dressings at hospital clinic	762
Prescriptions filled	2,310
Major operations performed	8
Minor operations performed	177
Laboratory examinations	278
Prostitutes examined	62
Chauffeurs examined	12
Constabulary recruits examined	1
Civil service examinations	2
Americans treated in hospital	39
Filipinos treated in hospital	232
Japanese treated in hospital	9
Chinese treated in hospital	8
Europeans treated in hospital	9
Male patients treated in hospital	245
Female patients treated in hospital	52
Vaccinations, subprovince of Benguet	7,896

Baguio hospital division—Continued.

REPORT OF TUBERCULOSIS CASES.

[Classification used is that recommended by the National Association for the Study and Prevention of Tuberculosis.]

Case No.	Race.	Sex.	Age.	Condition on admission.	Stage.	Lung involvement.	Gain in weight.	Complications.	Days treated.	Condition on discharge.
			Yrs.				*Kilos.*			
790	Filipino	Male	33	Moderately advanced	II	Right upper lobe	2.8		275	Improved.
1142	American	do	39	do	II	do	4.5		248	Do.
1156	Filipino	do	38	do	II	Left base	1		172	Apparently cured.
1160	do	Female	23	Incipient	I	Right base	3		137	Do.
1188	American	Male	40	Moderately advanced	II	Right upper lobe	2		77	Improved.
1243	do	do	34	do	II	Right upper and middle lobes			186	Do.
1281	Filipino	do	36	Advanced	III	Right upper lobe; left upper lobe			43	Unimproved.
1305	do	do	30	Moderately advanced	II	Right apex; left apex		Malaria	31	Improved.
1464	American	do	39	Incipient	I	Right apex	1.5		18	Do.

Patients treated during the half year 1913, 12 (Americans, 6; Filipinos, 5; Spaniard, 1).
Patients remaining in hospital, Dec. 31, 1913, 3 (Americans, 2; Spaniard, 1).
Cases to be reported, 9 (Americans, 4; Filipinos, 5).

Baguio hospital division—Continued.

TABLE OF DEATHS.

Dates.	Nationality.	Adult or child.	Sex.	Causes of death.
1913.				
July 12	Filipino	Child	Female	Broncho-pneumonia.
Sept. 28	Igorot	Adult	Male	Tuberculosis of the lungs.
Oct. 1	Filipino	Child	do	Congenital debility; premature birth.
Oct. 2	Igorot	Adult	do	Tuberculosis of the lungs; landslide; dislocation.
Oct. 3	Filipino	do	do	Wound, lacerated thigh; wound, lacerated arm; purulent infection and septichæmia.
Nov. 8	Igorot	do	do	Acute bacillary dysentery.
Nov. 19	do	do	do	Lobar pneumonia.
Nov. 21	do	do	do	Senile debility; acute bronchitis.
Nov. 26	do	do	do	Do.
Dec. 2	do	do	do	Lobar pneumonia; peritonitis (post operative).
Dec. 7	Filipino	do	do	Vesical calculus; cystitis, chronic.
Dec. 8	Igorot	do	do	Lobar pneumonia; retroperitoneal abscess.
Dec. 17	do	do	do	Pyæmia of gall bladder; vesical calculus; cystitis, chronic.
Dec. 14	American	do	do	Mitral and aortic insufficiency; myocarditis, chronic; Bright's disease.
Dec. 17	Igorot	do	do	Pneumonia, lobar.
Dec. 22	do	do	do	Acute bacillary dysentery.
Dec. 25	Chinese	do	do	Mitral and aortic insufficiency; myocarditis, chronic; Bright's disease.

BONTOC HOSPITAL DIVISION.

MEDICAL AND SURGICAL CASES.

[Out-patient clinic.]

Diseases.	Cases.	Treatments.
4. Malaria	14	25
14. Dysentery	4	9
18. Erysipelas	1	16
19. Other epidemic diseases	2	22
20. Purulent infection and septichæmia	50	197
25. Mycosis	1	5
28. Tuberculosis of the lungs	1	15
34. Tuberculosis of other organs	1	12
38b. Gonococcus infection	5	51
47. Acute articular rheumatism	4	10
48. Chronic rheumatism and gout	1	2
51. Exophthalmic goitre	1	3
56. Alcoholism (acute or chronic)	1	3
73. Neuralgia and neuritis	1	1
75b. Trachoma	7	101
75. Diseases of the eyes and their annexa	33	106
76. Diseases of the ears	12	55
86. Diseases of the nasal fossæ	5	25
88. Diseases of the thyreoid body	63	193
89. Acute bronchitis	22	45
98. Other diseases of the respiratory system (tuberculosis excepted)	3	4
99a. Diseases of the teeth and gums	10	12
99b. Diseases of the mouth and annexa	4	12
100. Diseases of the pharynx	4	9
103. Other diseases of the stomach (cancer excepted)	4	9
105. Diarrhœa and enteritis (2 years and over)	4	6
107. Intestinal parasites	5	5
110. Other diseases of the intestines	14	31
124. Diseases of the bladder	5	21
127. Nonvenereal diseases of the male genital organs	3	23
130b. Other diseases of the uterus	1	3
132. Salpingitis and other diseases of the female genital organs	1	7
133. Nonvenereal diseases of the breast (cancer excepted)	1	1
143. Furuncle	17	76
144. Acute abscess	24	134
145a. Trichophytosis	31	122
145b. Scabies	16	46
145c. Other diseases of the skin and annexa	322	1461
146. Diseases of the bones (tuberculosis excepted)	3	26
165a. Venomous bites and stings	2	6
165b. Other acute poisonings	1	1
166. Conflagration	6	28
167. Burns (conflagration excepted)	11	71
171. Traumatism by cutting or piercing ingtruments	40	206
175. Traumtism by other crushing (vehicles, railways, landslides, etc.)	6	42

Bontoc hospital division—Continued.

MEDICAL AND SURGICAL CASES—Continued.

Diseases.	Cases.	Treatments.
176. Injures by animals	5	20
185c. Fractures (cause not specified)	3	3
186. Other external violence	57	211
189a. Cause of death not specified or ill defined	7	21
Total	839	3,513

This report does not include ward patients treated in dressing rooms.

CASES TREATED AT THE PROVINCIAL HEALTH STATIONS BY MEDICAL OFFICERS OR ASSISTANT SANITARY INSPECTORS FOR THE MOUNTAIN PROVINCE.

Diseases.	Cases.	Diseases.	Cases.
1. Typhoid fever	68	103. Other diseases of the stomach (cancer excepted)	152
4. Malaria	3,165	105. Diarrhœa and enteritis (2 years and over)	33
6. Measles	14	107. Intestinal parasites	147
8. Whooping cough	5	109. Hernia, Intestinal obstruction	3
14. Dysentery	626	110a. Diseases of the anus and fæcal fistulas	1
18. Erysipelas	10	110b. Other diseases of the intestines	45
19. Other epidemic diseases	116	115. Other diseases of the liver	1
20. Purulent infection and septichæmia	12	119. Acute nephritis	2
28. Tuberculosis of the lungs	19	123. Calculi of the urinary passages	2
34. Tuberculosis of other organs	4	125. Diseases of the urethra, urinary abscess, etc	3
36. Rickets	3	127. Nonvenereal diseases of the male genital organs	6
37. Syphilis	5	130. Other diseases of the uterus	4
38. Gonococcus infection	76	136. Other accidents of labor	2
46. Other tumors (tumors of the female genital organs excepted)	1	137. Puerperal septichæmia	3
47. Acute articular rheumatism	72	143. Furuncle	62
54. Anæmia, chlorosis	27	144. Acute abscess	334
67. General paralysis of the insane	3	145b. Scabies	72
71. Convulsions of infants	1	145c. Other diseases of the skin and annexa	1,069
73. Neuralgia and neuritis	7	149. Other diseases of the organs of locomotion	1
74. Other diseases of the nervous system	2	167. Burns (conflagration excepted)	24
75. Diseases of the eyes and their annexa	264	171. Traumatism by cutting or piercing instruments	157
76. Diseases of the ears	71	172. Traumatism by fall	3
85. Hæmorrhage; other diseases of the circulatory system	2	176. Injuries by animals	43
86. Diseases of the nasal fossæ	18	185. Fracture (cause not specified)	34
87. Diseases of the larynx	3	186. Other external violence	880
88. Diseases of the thyreoid body	144	189. Cause of death not specified or ill-defined	192
89. Acute bronchitis	149		
92. Pneumonia	2		
93. Pleurisy	1		
97. Pulmonary emphysema	1		
98. Other diseases of the respiratory system (tuberculosis excepted)	364		
99a. Diseases of the teeth and gums	43	Total	8,646
99b. Diseases of the mouth and annexa	73		

BUTUAN HOSPITAL DIVISION.

HOSPITAL CASES.

Diseases.	Remaining at last report.	Admitted.	Died.	Discharged.	Remaining.
4. Malaria		7		6	1
14. Dysentery		4		3	1
17. Leprosy		3		2	1
34. Tuberculosis of other organs		6	1	3	2
35. Disseminated tuberculosis		1		1	
37. Syphilis		1		1	
38b. Gonococcus infection		1		1	
39. Cancer and other malignant tumors of the buccal cavity	1	1		2	
46. Other tumors (tumors of the female genital organs excepted)		3	1	2	
47. Acute articular rheumatism		7		6	1
54. Anæmia, chlorosis		2		2	
61. Simple meningitis		1	1		
63. Other diseases of the spinal cord		1		1	

Butuan hospital division—Continued.

HOSPITAL CASES—Continued.

Diseases.	Remaining at last report.	Admitted.	Died.	Discharged.	Remaining.
69. Epilepsy	1	1		2	
73a. Hysteria		1		1	
73b. Neuralgia and neuritis		1		1	
76. Diseases of the ears		1		1	
91. Broncho-pneumonia		1	1		
103. Other diseases of the stomach (cancer excepted)		2		2	
105. Diarrhœa and enteritis (2 years and over)		1		1	
108. Appendicitis and typhlitis		1		1	
110b. Other diseases of the intestines		1		1	
120. Bright's disease		1		1	
125. Diseases of the urethra, urinary abscess, etc.		1		1	
127. Nonvenereal diseases of the male genital organs	1	9		9	1
134a. Normal labor		1		1	
134b. Accidents of pregnancy		1		1	
144. Acute abscess	1	7		7	1
145c. Other diseases of the skin and annexa		4		3	1
170. Traumatism by firearms	1	1		2	
171. Traumatism by cutting or piercing instruments		7	1	[a]5	
Total	5	80	5	70	9

[a] Escaped, 1.

OUTDOOR DEPARTMENT.

Diseases.	Cases.	Diseases.	Cases.
4. Malaria	442	105. Diarrhœa and enteritis (2 years and over)	71
14. Dysentery	82	107. Intestinal parasites	442
19. Other epidemic diseases	5	109. Hernia, intestinal obstruction	2
27. Beriberi	1	110b. Other diseases of the intestines	29
28. Tuberculosis of the lungs	37	114. Biliary calculi	4
32. Pott's disease	1	119. Acute nephritis	1
33. White swellings	1	120. Bright's disease	5
34. Tuberculosis of other organs	9	123. Calculi of the urinary passages	2
37. Syphilis	1	124. Diseases of the bladder	6
38b. Gonococcus infection	17	127. Nonvenereal diseases of the male genital organs	13
39. Cancer and other malignant tumors of the buccal cavity	1	128. Uterine hæmorrhage (nonpuerperal)	9
46. Other tumors (tumors of the female genital organs excepted)	9	130b. Other diseases of the uterus	18
47. Acute articular rheumatism	135	134a. Normal labor	5
49. Scurvy	3	134b. Accidents of pregnancy	1
51. Exophthalmic goitre	3	137. Puerperal septichæmia	1
54. Anæmia, chlorosis	6	143. Furuncle	4
68. Other forms of mental alienation	1	144. Acute abscess	132
69. Epilepsy	2	145a. Trichophytosis	16
73b. Neuralgia and neuritis	15	145b. Scabies	100
74. Other diseases of the nervous system	4	145c. Other diseases of the skin and annexa	225
75c. Diseases of the eyes and their annexa	64	146. Diseases of the bones (tuberculosis excepted)	2
76. Diseases of the ears	23	147. Diseases of the joints (tuberculosis and rheumatism excepted)	14
78. Acute endocarditis	2	149. Other diseases of the organs of locomotion	10
79. Organic diseases of the heart	2	152. Other causes peculiar to early infancy	1
83. Diseases of the veins (varices, hæmorrhoids, phlebitis, etc.)	3	165a. Venomous bites and stings	5
84. Diseases of the lymphatic system (lymphangitis, etc.)	13	167. Burns (conflagration excepted)	15
85. Hæmorrhage; other diseases of the circulatory system	1	171. Traumatism by cutting or piercing instruments	278
86. Diseases of the nasal fossæ	22	176. Injuries by animals	6
87. Diseases of the larynx	8	185a. Dislocations	2
89. Acute bronchitis	220	185b. Sprains	17
91. Broncho-pneumonia	1	185c. Fractures (cause not specified)	2
93. Pleurisy	10	186. Other external violence	53
94. Pulmonary congestion, pulmonary apoplexy	2	187. Ill-defined organic diseases	1
96. Asthma	16	189a. Cause of death not specified or ill-defined	67
99a. Diseases of the teeth and gums	59	Total	3,035
99b. Diseases of the mouth and annexa	19		
100. Diseases of the pharynx	7		
103. Other diseases of the stomach (cancer excepted)	229		

CHINESE HOSPITAL SICK REPORT.

[Dr. Tee Han Kee, physician in charge.]

Status.	Male.	Female.	Total.
In hospital at last report	19		19
Received	110		110
Discharged	72		72
Transferred			
Died	39		39
Remaining in hospital	18		18

CULION LEPER COLONY DIVISION.

Status.	Americans.		Europeans.		Filipinos.		Chinese.		Others.		Total.
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
Remaining July 1, 1913	1		3		2,078	1,202	2		8	4	3,298
Admitted					192	83			5	2	283
Born					6	17					23
Readmitted					6						6
Discharged					1	2					3
Transferred											
Escaped					16	2					18
Died			1		197	91				1	290
Remaining	1		2		2,068	1,207.	2		13	5	3,298

MARRIAGES.

	Total marriages.	Single males married—			Widowed males married—			Divorced males married—			Nationality of brides.						Ralation ship.	
		Single female.	Widowed female.	Divorced female.	Single female.	Widowed female.	Divorced female.	Single female.	Widowed female.	Divorced female.	Americans.	Filipinos.	Spaniards.	Other Europeans.	Chinese.	All others.	Blood.	Affinity.
Americans																		
Filipinos	28	21	4		3							28						
Spaniards																		
Other Europeans																		
Chinese																		
All others																		
Total	28	21	4		3							28						

MARRIAGES BY AGES.

Males.		Females.						
Age.	Number.	To 14 years.	To 20 years.	To 25 years.	To 30 years.	To 40 years.	To 50 years.	Over 50 years.
To 14 years								
To 20 years	4		3	1				
To 25 years	17		6	7	3	1		
To 30 years	4		1	2	1			
To 40 years	1			1				
To 50 years								
Over 50 years	2					1	1	
Total	28		10	11	4	2	1	

COST OF MESSES.

	Total cost.	Average cost per person per day.
Leper mess	₱91,739.17	₱0.15016
Laborers' mess	7,198.44	.241
Employees' mess	3,670.95	.927
Filipino mess	870.61	.468

Culion leper colony division—Continued.

EXPENDITURES.

Gratuities	₱15,979.40
General payroll	6,296.86
Special payroll	400.97
Leper payroll	2,218.85
Emergency payroll	11,116.31
Supplies, subsistence	87,696.38
Supplies, construction and repair	6,021.55
Supplies, miscellaneous	10,137.97
Total	139,868.29

The above statement does not include salaries, etc., paid from the Manila office, nor drugs and miscellaneous supplies furnished from property division.

CONSTRUCTION AND REPAIR.

Emergency payroll	₱11,116.31
Supplies purchased	6,021.55
Subsistence	5,999.59
Total	23,137.45

COST OF PRINCIPAL PROJECTS.

Leper kitchen, concrete casing of fireplace, water installation, cawas and covers, chopping block, padlock	₱326.10
Worcester Plaza, terraces, and back road, 3,726 cubic meters excavated	5,651.07
Tenement No. 10, steps, walks, drains, and bed bottoms	927.49
Sewer, 140 lineal meters, 5 manholes	502.64
Tenement No. 11, floors, steps, walks, and drains	1,404.74
Lavatory No. 5, walks and drains	165.00
Amusement hall, floor, walks, steps, drains, and part roof	2,100.43
Stairway, approach to Worcester Plaza	4,699.09
Stairway, approach to hospital	1,053.98
House and fencing at Ugnisan	611.06

PRINCIPAL ITEMS OF MAINTENANCE.

Main warehouse, repairs and painting roof	125.28
Chief's quarters, repairs, painting, and extension of porch	569.91
Sisters' quarters, painting and repairs	268.29
Filipino quarters, painting and repairs	388.75
Angle-iron beds for hospital extension	844.65
Sea wall, repairs	220.39

PHILIPPINE GENERAL HOSPITAL.

GENERAL STATISTICS.

Total number of completed cases	3,588
Total number of births	294
Total number of deaths	233
Total number of hospital days	52,227
Average hospital days	14.6

NATIONALITY.

Americans	543
Filipinos	2,879
American Negroes	8
Japanese	26
Chinese	26
British Indians	8
Others	22
Europeans:	
Germans	10
French	6
British	34
Spanish	25
Greek	1

CLINICAL RECORD DIVISION.

Classes of patients.	Medical.	Surgical.	Obstetrical.	Eye, ear, etc.	Total.
Charity adults	575	795	311	219	1,900
Charity children	187	74		33	294
Government free	286	169	52	38	545
Government pay	311	148	46	23	528
General hospital pay	30	36	6	3	75
Private pay	89	112	21	24	246
Total	1,478	1,334	436	340	3,588

Philippine General Hospital—Continued.

DEPARTMENT OF EYE, EAR, NOSE, AND THROAT.

	Charity.	Government.		Hospital, pay.	Private, pay.	Total.
		Free.	Pay.			
Operations:						
Major	140	9	9	......	14	172
Minor	100	7	4	......	3	114
Emergency major	......	......	......	......	......	......
Emergency minor	......	......	......	......	......	......
Cleaning and dressing (including suturing):						
Dressings—						
Large	12	6	......	......	......	18
Small	6,638	1,523	40	......	6	8,207
Refractions	195	124	......	......	......	319
Anæsthetics:						
General	48	4	5	......	3	60
Local	192	12	8	......	14	226
Total	7,325	1,685	66	......	40	9,116

DEPARTMENT OF OBSTETRICS.

	Official.	Charity.	Private, pay.	Hospital, pay.	Total.	Nationality.		
						Americans.	Filipinos.	Others.
Abortions and miscarriages	5	27	1	......	33	1	32	......
Pregnancy	13	48	3	......	64	1	60	3
Parturient women	70	199	16	5	290	34	248	8
Post partum women	7	39	1	2	49	......	49	......
Births	70	203	16	5	294	34	252	8
Living children	64	176	16	4	260	32	220	8
Stillborn	6	27	......	1	34	2	32	......
Deaths	6	31	......	1	38	1	37	......
Mothers	......	14	......	......	14	......	14	......
Infants	6	17	......	1	24	1	23	......

COLLEGE OF MEDICINE AND SURGERY, DEPARTMENT OF OBSTETRICS, OUT-PATIENT CHARITY SERVICE.

	Total.	Recovered.	Died.	Transferred to hospital.	Deserted.	Refused.
Pregnancy:						
Normal	95	55	......	31	......	9
Abnormal—						
Bronchitis	1	......	......	1	......	......
Dysentery	1	1	......	......	......	......
Pelvic cellulitis	1	......	......	......	......	1
Placenta prævia	3	......	......	2	......	1
Nephritis	1	......	......	......	......	1
Malaria	1	1	......	......	......	......
Twin with papyraceous fœtus	1	1	......	......	......	......
Abortion:						
Complete	2	2	......	......	......	......
Incomplete	3	......	......	3	......	......
Threatened	4	......	......	3	......	1
Miscarriage:						
Complete	2	2	......	......	......	......
Inevitable	2	......	......	2	......	......
Threatened	1	1	......	......	......	......
Parturition:						
Premature	5	3	......	......	1	1
Normal—						
L. O. A	91	78	......	10	......	3
R. O. A	25	25	......	......	......	......
R. O. P	2	2	......	......	......	......
R. S. A	2	2	......	......	......	......
Twin	1	1	......	......	......	......

Philippine General Hospital—Continued.

COLLEGE OF MEDICINE AND SURGERY DEPARTMENT OF OBSTETRICS OUT-PATIENT CHARITY SERVICE—Continued.

	Total.	Recovered.	Died.	Transferred to hospital.	Deserted.	Refused.
Parturition—Continued.						
Abnormal—						
Eclampsia antepartum	1			1		
Inertia uteri	2			2		
Placenta prævia	6			5		1
Premature, separation of placenta	1			1		
Hydramnios	1	1				
Retained placenta	4	1		3		
Retention, secundines	2	2				
Atony of uterus	1					1
Hæmorrhage due to atony of uterus	1			1		
Dry labor	4			4		
Transverse	1			1		
Dystocia due to atresia of vagina	1			1		
Operations:						
Manual extraction of placenta	3	3				
Repair of perinæum	4	4				
Puerperium:						
Normal	93	81		2		10
General infection	1			1		
Infection, neuritis	1	1				
Hæmorrhage	1			1		
Neuritis	1			1		
Nephritis	1	1				
Children:						
Normal	181	155	2	13	1	10
Stillborn	9		8			1
Weakling	4	4				
Unusual	1			1		
Fracture of arm	1			1		
Fœtus, papyraceous	1		1			

Visits.

Physicians:	
Dr. Roxas	1
Dr. Tolentino	52
Dr. Luna	28
Dr. Rustia	39
Dr. Feliciano	58
Dr. Elizalde	23
Dr. Domingo	30
Dr. Valerio	20
Dr. Lejano	14
Dr. Rodolfo	35
Dr. Avellana	17
Dr. Marfori	20
Dr. Jimenes	16
Nurses:	
Miss Allarey	905
Miss Arias	742

DEPARTMENT OF SURGERY.

	Charity.	Government.		Hospital, pay.	Private, pay.	Total.
		Free.	Pay.			
Operations:						
Major	196	39	43	2	36	316
Minor	292	37	58	7	29	423
Emergency major	29	6	7	1	4	47
Emergency minor	580	2	4	3	2	591
Cleaning and dressing (including suturing):						
Dressing—						
Large	4,158	143	203	6	155	4,665
Small	5,397	747	452	10	585	7,191
Anæsthetics:						
General	442	74	92	7	63	678
Local	184	6	10		14	214
Total	11,278	1,054	869	36	888	14,125

Philippine General Hospital—Continued.

ELECTRO-MEDICAL DEPARTMENT.

	Official.	Private.	Charity.	Total.	Amount.
Skiagram:					
Extremities	38	7	40	85	₱75.00
Head	2	4	10	16	100.00
Chest	18	2	8	28	100.00
Abdomen	49	11	89	149	300.00
Total	107	24	147	278	575.00
Fluoroscopy	1		2	3	
X-irradiations	46	15	3	64	112.50
High frequency	37	5	10	52	37.50
Galvanic	18	44	17	79	165.00
Vibro massage		8		8	30.00
Cystoscopy			2	2	
Total	102	72	34	208	345.00
Grand total:					
Skiagram	107	24	147	278	575.00
Fluoroscopy	1		2	3	
X-Irradiations	46	15	3	64	112.50
High frequency	37	5	10	52	37.50
Galvanic	18	44	17	79	165.00
Vibro massage		8		8	30.00
Cystoscopy			2	2	
Total	209	96	181	486	920.00

NOTE.—Report from July 1 to Aug. 31, 1913.

FREE DISPENSARY DIVISION.

	Clinics.									Total.
	Medical.	Surgical.	Skin.	Obstetrical.	Eye, ear, nose, and throat.	Neurology.	Genito urinary.	Children.	Dental.	
First visit	4,151	2,548	597	92	2,072	168	237	800	1,079	11,744
More than one visit	2,629	6,097	342	22	3,075	97	189	288	1,127	13,866
Males	4,345	5,437	644		2,735	155	421		1,336	15,073
Females	2,435	2,225	194	114	1,601	99			763	7,431
Children		983	101		811	11	5	1,088	107	3,106
Total patients	6,780	8,645	939	114	5,147	265	426	1,088	2,206	25,610
Number of government employees										3,587
Surgical clinics:										
Minor operations										282
Dressings										7,070
Eye, ear, nose, and throat clinics:										
Minor operations										49
Dressings										1,613
School children's clinic										1,508
Tuberculosis clinic										1,169
Grand total										28,287
Prescriptions filled										44,667

INFORMATION DIVISION.

Ambulance service:	
Routine	1,185
Emergency	95
Total	1,280
Patients transferred to Philippine General Hospital	77
Patients transferred to other hospitals	112
Patients refusing to come	65
Patients not accepted	101
Wrong address	26
Physicians with ambulance	1,007

Philippine General Hospital—Continued.

INFORMATION DIVISION—Continued.

Admissions:

Charity	2,177
Government free	534
Government pay	523
General hospital pay	83
Private pay	242
Total	3,559

Refused admissions:

No beds	105
Chronic incurable	73
Other reasons	43
Total	221

Patients prescribed for (out patients):

Government	997
Charity	786
Total	1,783

OUT-PATIENT DEPARTMENT.

Physician.	Visits.		Total.
	Office.	Outside.	
Dr. W. E. Musgrave	1,234	72	1,306
Dr. P. K. Gilman	1,035	35	1,070
Dr. R. Rembe	3,026		3,026
Dr. R. E. L. Newberne	151	105	256
Dr. G. B. Angle	20	65	85
Dr. J. E. Reed, jr	361	4	365
Dr. P. Guazon	413		413
Dr. H. F. Smith	127		127
Dr. A. R. Ubaldo	271		271
Dr. M. Tolentino	8		8
Dr. C. M. Reyes	290		290
Dr. A. D. Vazquez	1,113		1,113
Dr. P. Gutierrez	243	22	265
Dr. C. R. Stanley	531	1	532
Dr. W. P. Hardee	112	7	119
Officers of the day	1,783		1,783
Total	10,718	311	11,029

TABLE OF DISEASES.

Diseases.	Cases.	Discharged.	Died.	Transferred.	Deserted.
1. Typhoid fever	82	60	20	2	
2. Typhus fever	3	3			
4. Malaria	168	157	9	2	
6. Measles	3			3	
9. Diphtheria and croup	1			1	
10. Influenza	8	8			
12. Asiatic cholera	4			4	
14. Dysentery	732	705	21	6	
15. Plague	1			1	
19. Other epidemic diseases	60	57	1	2	
20. Purulent infection and septichæmia	71	62	8	1	
21. Glanders	1		1		
24. Tetanus	5			5	
25. Mycoses	1	1			
27. Beriberi	28	18	10		
28. Tuberculosis of the lungs	213	188	14	11	
29. Acute military tuberculosis	5	3	2		
30. Tuberculous meningitis	7	3	4		
31. Abdominal tuberculosis	42	33	6	3	
32. Pott's disease	6	6			
33. White swellings	24	21	2		1
34. Tuberculosis of other organs	69	61	3	4	1

Philippine General Hospital—Continued.

TABLE OF DISEASES—Continued.

Diseases.	Cases.	Discharged.	Died.	Transferred.	Deserted.
36. Rickets	9	8	1		
37. Syphilis	78	78			
37a. Syphilis, primary	18	18			
37b. Syphilis, secondary	73	73			
37c. Syphilis, tertiary	75	74	1		
37d. Syphilis, hereditary	3	3			
37e. Period not stated	36	34	2		
38a. Soft chancre	7	7			
38b. Gonococcus infection	175	173	1	1	
39. Cancer and other malignant tumors of the buccal cavity	10	10			
40. Cancer and other malignant tumors of the stomach, liver	15	12	3		
41. Cancer and other malignant tumors of the peritonæum, intestines, rectum	9	9			
42. Cancer and other malignant tumors of the female genital organs	22	20	2		
43. Cancer and other malignant tumors of the breast	2	2			
44. Cancer and other malignant tumors of the skin	3	2	1		
45. Cancer and other malignant tumors of other organs or of organs not specified	43	35	8		
46. Other tumors (tumors of the female genital organs excepted)	22	21	1		
47. Acute articular rheumatism	21	21			
48. Chronic rheumatism and gout	3	3			
49. Scurvy	1	1			
50. Diabetes	4	4			
51. Exophthalmic goitre	8	7	1		
54. Anæmia, chlorosis	117	98	17	2	
55. Other general diseases	34	20	14		
56. Alcoholism (acute or chronic)	15	14		1	
58. Other chronic occupation poisonings	1		1		
59. Other chronic poisonings	3	3			
61. Simple meningitis	10	3	7		
63. Other diseases of the spinal cord	4	4			
64. Cerebral hæmorrhage, apoplexy	16	7	9		
66. Paralysis without specified cause	23	19	4		
68. Other forms of mental alienation	16	11	4	1	
69. Epilepsy	14	11	2	1	
73a. Hysteria	11	11			
73b. Neuralgia and neuritis	33	33			
74. Other diseases of the nervous system	21	20	1		
75a. Follicular conjunctivitis	29	27	2		
75c. Other diseases of the eyes and their annexa	244	239	4	1	
76. Diseases of the ears	48	46	2		
77. Pericarditis	2	2			
78. Acute endocarditis	11	8	3		
79. Organic diseases of the heart	82	58	22	1	1
81. Diseases of the arteries, atheroma, aneurysm etc	33	26	6	1	
82. Embolism and thrombosis	5	2	3		
83. Diseases of the veins (varices, hæmorrhoids, phlebitis, etc.)	56	56			
84. Diseases of the lymphatic system (lymphangitis, etc.)	33	31	2		
85. Hæmorrhage; other diseases of the circulatory system	12	6	6		
86. Diseases of the nasal fossæ	61	60	1		
87. Diseases of the larynx	11	11			
88. Diseases of the thyreoid body	36	34	2		
89. Acute bronchitis	106	96	10		
90. Chronic bronchitis	35	33	2		
91. Broncho-pneumonia	74	40	33	1	
92. Pneumonia	35	20	14	1	
93. Pleurisy	55	47	5	3	
94. Pulmonary congestion, pulmonary apoplexy	41	8	32	1	
96. Asthma	17	16	1		
97. Pulmonary emphysena	2	2			
98. Other diseases of the respiratory system (tuberculosis excepted)	4	3	1		
99. Diseases of the mouth and annexa	66	58	8		
100. Diseases of the pharynx	162	158	2	2	
101. Diseases of the œsophagus	1	1			
102. Ulcer of the stomach	8	7	1		
103. Other diseases of the stomach (cancer excepted)	72	68	3		1
104. Diarrhœa and enteritis (under 2 years)	62	49	13		
105. Diarrhœa and enteritis (2 years and over)	82	72	10		
106. Ankylostomiasis	389	376	10	3	

Philippine General Hospital—Continued.

TABLE OF DISEASES—Continued.

Diseases.	Cases.	Discharged.	Died.	Transferred.	Deserted.
107. Intestinal parasites	2,409	2,333	62	14	
108. Appendicitis and typhlitis	148	138	10		
109. Hernia, intestinal obstruction	57	56	1		
110a. Diseases of the anus and fæcal fistulas	35	32	2	1	
110b. Other diseases of the intestines	83	69	14		
111. Acute yellow atrophy of the liver	1	1			
113. Cirrhosis of the liver	24	21	3		
114. Biliary calculi	17	12	5		
115. Other diseases of the liver	93	65	28		
116. Diseases of the spleen	5	4	1		
117. Simple peritonitis (nonpuerperal)	100	81	19		
118. Other diseases of the digestive system (cancer and tuberculosis excepted)	8	6	2		
119. Acute nephritis	64	47	16	1	
120. Bright's disease	1,496	1,409	68	19	
122. Other diseases of the kidneys and annexa	58	50	8		
123. Calculi of the urinary passages	35	28	7		
124. Diseases of the bladder	103	93	10		
125. Diseases of the urethra, urinary abscess, etc	28	24	4		
126. Diseases of the prostate	9	8	1		
127. Nonvenereal diseases of the male genital organs	33	32	1		
128. Uterine hæmorrhage (nonpuerperal)	3	3			
129. Uterine tumor (noncancerous)	24	23	1		
130a. Metritis	142	139	3		
130b. Other diseases of the uterus	193	187	6		
131. Cysts and other tumors of the ovary	51	48	3		
132. Salpingitis and other diseases of the female genital organs	68	63	5		
133. Nonpuerperal diseases of the breast (cancer excepted)	17	16	1		
134a. Normal labor	89	89			
134b. Accidents of pregnancy	83	83			
135. Puerperal hæmorrhage	42	35	7		
136. Other accidents of labor	656	636	18	2	
137. Puerperal septichæmia	21	19	2		
138. Puerperal albuminuria and convulsions	6	5	1		
140. Following childbirth (not otherwise defined)	42	41	1		
141. Puerperal diseases of the breast	1	1			
142. Gangrene	2	1	1		
143. Furuncle	53	47	6		
144. Acute abscess	84	80	3	1	
145a. Trichophytosis	11	11			
145b. Scabies	25	25			
145c. Other diseases of the skin and annexa	106	96	10		
146. Diseases of the bones (tuberculosis excepted)	25	23	2		
147. Diseases of the joints (tuberculosis and rheumatism excepted)	23	23			
149. Other diseases of the organs of locomotion	37	37			
150. Congenital malformations (stillbirths not included)	54	47	7		
151. Congenital debility, icterus, and sclerema	42	30	12		
152. Other diseases peculiar to early infancy	5	2	2	1	
154. Senility	12	8	4		
158. Suicide by drowning	1	1			
164. Poisoning by food	4	4			
165. Other acute poisonings	8	7	1		
167. Burns (conflagrations excepted)	50	26	24		
170. Traumatism by firearms	6	6			
171. Traumatism by cutting or piercing instruments	20	18	2		
173. Traumatism in mines and quarries	1	1			
175. Traumatism by other crushing	8	8			
176. Injuries by animals	1	1			
177. Starvation	1	1			
183. Homicide by cutting or piercing instruments	19	17	2		
185a. Dislocations	10	9	1		
185b. Sprains	1	1			
185c. Fractures	83	75	7	1	
186. Other external violence	204	188	14	1	1
187. Ill-defined organic disease	25	20	5		
188. Sudden death	2	2			
189a. Cause of death not specified or ill-defined	158	112	45		1
189b. No disease, feigned disease	43	30	13		
Total	11,731	10,769	850	106	6

PRISON SANITATION DIVISION.

REPORT OF SICK.

Diseases.	Remaining at last report.	Admitted.	Died.	Transferred.	Discharged.	Remaining.
4. Malaria	1	29			30	
5. Smallpox		17			17	
12. Asiatic cholera		1	1			
14. Dysentery	17	216	3		225	5
17. Leprosy		2		2		
19. Other epidemic diseases	4	109			113	
20. Purulent infection and septichæmia		7			7	
24. Tetanus		1		1		
28. Tuberculosis of the lungs	161	74	32		80	123
31. Abdominal tuberculosis	1	4	1		3	1
34. Tuberculosis of other organs	1	6			5	2
35. Disseminated tuberculosis		4	4			
37a. Syphilis, primary		2			2	
37b. Syphilis, secondary	3	1			4	
37c. Syphilis, tertiary		17			16	1
38a. Soft chancre		1			1	
38b. Gonococcus infection		54			45	9
40. Cancer and other malignant tumors of the stomach, liver		1	1			
41. Cancer and other malignant tumors of the peritonæum, intestines, rectum		1			1	
45. Cancer and other malignant tumors of other organs or of organs not specified		1			1	
46. Other tumors (tumors of the female genital organs excepted)		8			8	
47. Acute articular rheumatism		1			1	
48. Chronic rheumatism and gout	3	9			8	4
51. Exophtalmic goitre		2			1	1
54. Anæmia, chlorosis		1			1	
55. Other general diseases		4			4	
56. Alcoholism (acute or chronic)		4			3	1
59. Other chronic poisonings	8	296			293	11
61. Simple meningitis		1	1			
64. Cerebral hæmorrhage, apoplexy		2	2			
66. Paralysis without specified cause	3	2			5	
68. Other forms of mental alienation	1	6		5	1	1
69. Epilepsy		1			1	
73a. Hysteria		2			1	1
73b. Neuralgia and neuritis		1			1	
74. Other diseases of the nervous system	1	1			2	
75b. Trachoma		3			3	
75c. Other diseases of the eyes and their annexa	1	25			23	3
79. Organic diseases of the heart	2	1			2	1
81. Diseases of the arteries, atheroma, aneurysm, etc	1	2			2	1
83. Diseases of the veins (varices, hæmorrhoids, phlebitis, etc.)	3	33			33	3
84. Diseases of the lymphatic system (lymphangitis, etc.)		4			4	
86. Diseases of the nasal fossæ		2			2	
89. Acute bronchitis		1			1	
90. Chronic bronchitis		1			1	
91. Broncho-pneumonia		2	1			1
92. Pneumonia		13	4		8	1
93. Pleurisy	2	7			7	2
95. Gangrene of the lungs		1	1			
96. Asthma	4	19			17	6
98. Other diseases of the respiratory system (tuberculosis excepted)		2	1		1	
99a. Diseases of the teeth and gums		4			4	
99b. Other diseases of the mouth and annexa		3			3	
100. Diseases of the pharynx		5			2	3
102. Ulcer of the stomach		3	1		1	1
105. Diarrhœa and enteritis (2 years and over)		1			1	
106. Ankylostomiasis	9	820			818	11
107. Intestinal parasites	22	1,022			1,028	16
108. Appendicitis and typhlitis		1			1	
109. Hernia, intestinal obstruction	3	31			29	5
110a. Diseases of the anus and fæcal fistulas	1	9			9	1
110b. Other diseases of the intestines		29			27	2
113. Cirrhosis of the liver		1	1			
117. Simple peritonitis (nonpuerperal)		2	2			
120. Bright's disease	1	4			5	
125. Diseases of the urethra, urinary abscess, etc		33			33	
126. Diseases of the prostate		1			1	

Prison sanitation division—Continued.

REPORT OF SICK—Continued.

Diseases.	Remaining at last report.	Admitted.	Died.	Transfered.	Discharged.	Remaining.
127. Nonvenereal diseases of the male genital organs	2	56			54	4
130b. Other diseases of the uterus		4			3	1
134b. Accidents of pregnancy		1			1	
135. Puerperal hæmorrhage		1			1	
136. Other accidents of labor		1			1	
141. Puerperal diseases of the breast		1			1	
144. Acute abscess	1	9			7	3
145a. Trichophytosis	2	6			3	5
145b. Scabies		14			12	2
145c. Other diseases of the skin and annexa		13			13	
146. Diseases of the bones (tuberculosis excepted)	1	3			4	
147. Diseases of the joints (tuberculosis and rheumatism excepted)		4			4	
149. Other diseases of the organs of locomotion	1	1			2	
150. Congenital malformations (stillbirths not included)		9			8	1
155. Suicide by poisoning		1			1	
167. Burns (conflagration excepted)		1			1	
170. Traumatism by firearms		3	1		2	
171. Traumatism by cutting or piercing instruments	1	3			4	
185a. Dislocations		2			2	
185c. Fractures		7			6	1
186. Other external violence		3			3	
189a. Cause of death not specified or ill-defined	19	284		3	290	10
189b. No disease, feigned disease		2			2	
Total	280	3,403	57	11	3,371	244

BILIBID PRISON REPORT OF DEATHS.

Diseases.	Presidio.				Carcel.				Total.	Conditions.			
	Filipinos.		Chinese.		Filipinos.		Chinese.						
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.		Married.	Single.	Widowed.	Unknown.
14. Dysentery	1				1		1		3	2		1	
24. Tetanus	1								1	1			
28. Tuberculosis of the lungs	27				5				32	16	10	6	
31. Abdominal tuberculosis					1				1		1		
35. Disseminated tuberculosis	5								5	4	1		
40. Cancer and other malignant tumors of the stomach, liver	1								1			1	
61. Simple meningitis	1								1	1			
64. Cerebral hæmorrhage, apoplexy					1		1		2	1			1
68. Other forms of mental alienation	2								2		2		
91. Broncho-pneumonia	2				1				3	2		1	
92. Pneumonia	1				1				2	1	1		
95. Gangrene of the lungs					1				1			1	
98. Other diseases of the respiratory system (tuberculosis excepted)	1								1		1		
102. Ulcer of the stomach							1		1	1			
113. Cirrhosis of the liver							1		1				1
117. Simple peritonitis (nonpuerperal)	1						1		2			1	1
170. Traumatism by firearms					1				1				1
186. Other external violence					1				1	1			
Total	43				13		5		61	30	16	11	4

Died in Bilibid Hospital	57
Died in San Lazaro Hospital	3
Legally executed	1
Total	61

Prison sanitation division—Continued.

REPORT OF SICK AND WOUNDED AT STOCKADE HOSPITAL, CORREGIDOR.

Diseases.	Remaining at last report.	Admitted.	Died.	Transferred.	Discharged.	Remaining.
4. Malaria		17			15	2
14. Dysentery	1	27			28	
19. Other epidemic diseases	3	8		2	8	1
20. Purulent infection and septichæmia		1			1	
25. Mycoses	2				2	
28. Tuberculosis of the lungs	1	4		5		
29. Acute miliary tuberculosis		2	2			
31. Abdominal tuberculosis		1				1
37. Syphilis		5			5	
38a. Soft chancre		1				1
38b. Gonococcus infection	4	25		11	16	2
46. Other tumors (tumors of the female genital organs excepted)		3		1	2	
47. Acute articular rheumatism		2			2	
66. Paralysis without specified cause		1		1		
75. Other diseases of the eyes and their annexa		133		1	128	4
76. Diseases of the ears		13			13	
83. Diseases of the veins (varices, hæmorrhoids, phlebitis, etc.)		1			1	
84. Diseases of the lymphatic system (lymphangitis, etc.)		13			11	2
89. Acute bronchitis		8			6	2
90. Chronic bronchitis		6			6	
91. Broncho-pneumonia		1			1	
92. Pneumonia		14	3		5	6
93. Pleurisy		3			3	
97. Pulmonary emphysema		1		1		
98. Other diseases of the respiratory system (tuberculosis excepted)	1	1			2	
99a. Diseases of the teeth and gums		11			10	1
99b. Other diseases of the mouth and annexa		1			1	
100. Diseases of the pharynx		1			1	
103. Other diseases of the stomach (cancer excepted)		11			11	
104. Diarrhœa and enteritis (under 2 years)		5			3	2
105. Diarrhœa and enteritis (2 years and over)	2	22			24	
106. Ankylostomiasis	1	36			37	
107. Intestinal parasites		4			4	
109. Hernia, intestinal obstruction		2	1	1		
110a. Diseases of the anus and fæcal fistulas		2			2	
110b. Other diseases of the intestines		108			106	2
119. Acute nephritis		1			1	
120. Bright's disease		1	1			
124. Diseases of the bladder	1	1			2	
125. Diseases of the urethra, urinary abscess, etc.		2			2	
127. Nonvenereal diseases of the male genital organs		1			1	
143. Furuncle	2	49			50	1
144. Acute abscess	7	51			58	
145c. Other diseases of the skin and annexa		14			13	1
147. Diseases of the joints (tuberculosis and rheumatism excepted)		1			1	
148. Amputations	1			1		
149. Other diseases of the organs of locomotion		18		1	17	
150. Congenital malformations (stillbirths not included)		1			1	
167. Burns (conflagration excepted)		9			9	
171. Traumatism by cutting or piercing instruments	2	37			39	
172. Traumatism by fall	1	2		1	2	
175. Traumatism by other crushing		2			1	1
185. Fractures		2			2	
186. Other external violence		65			63	2
189. Cause of death not specified or ill-defined	3	100			97	6
Total	32	851	7	26	813	37

Prison sanitation division—Continued.

IWAHIG PENAL COLONY SICK REPORT.

Diseases.	Remaining at last report.	Admitted.	Died.	Discharged.	Remaining.
4. Malaria	5	376	4	373	4
14. Dysentery		5		5	
19. Other epidemic diseases		1		1	
20. Purulent infection and septichæmia	2	8		10	
28. Tuberculosis of the lungs	15	79	6	74	14
47. Acute articular rheumatism	1	6		4	3
48. Chronic rheumatism and gout		3		3	
54. Anæmia, chlorosis		1		1	
66. Paralysis without specified cause	1		1		
68. Other forms of mental alienation		1		1	
75. Diseases of the eyes and their annexa		6		6	
76. Diseases of the ears		1		1	
79. Organic diseases of the heart		1		1	
81. Diseases of the arteries, atheroma, aneurysm, etc		1		1	
87. Diseases of the larynx		1		1	
89. Acute bronchitis		1		1	
90. Chronic bronchitis		2		2	
91. Broncho-pneumonia		10		10	
92. Pneumonia		1		1	
94. Pulmonary congestion, pulmonary apoplexy	1	7		8	
91a. Diseases of the teeth and gums		1		1	
105. Diarrhœa and enteritis (2 years and over)		8		8	
106. Ankylostomiasis		7		7	
107. Intestinal parasites		5		5	
108. Appendicitis and typhlitis		1		1	
109. Hernia, intestinal obstruction		3	1	2	
110. Other diseases of the intestines		5		4	1
113. Cirrhosis of the liver		1		1	
118. Other diseases of the digestive system (cancer and tuberculosis excepted)		1			1
119. Acute nephritis	1	2		2	1
120. Bright's disease	1			1	
126. Diseases of the prostate		1	1		
143. Furuncle		1		1	
144. Acute abscess		10		10	
145. Other diseases of the skin and annexa		22		21	1
146. Diseases of the bones (tuberculosis excepted)		1		1	
149. Other diseases of the organs of locomotion		7		7	
157. Suicide by hanging or strangulation		1	1		
165. Other acute poisonings		1		1	
171. Traumatism by cutting instruments		16		16	
174. Traumatism by machines		1		1	
185b. Sprains		1		1	
185c. Fractures (cause not specified)		4		2	2
186. Other external violence	1	53		53	1
187. Ill-defined organic disease		2		2	
189. Cause of death not specified or ill-defined	3	6		7	2
Total	31	672	14	659	30

SAN LAZARO HOSPITALS DIVISION.

INSANE DEPARTMENT.

Status.	Americans.		Europeans.		Filipinos.		Chinese.		Others.		Total.
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
In hospital July 1, 1913	4		2	1	218	66	4		2		297
Admitted	14		4		38	15					71
Discharged	13		3	1	22	14	1				54
Transferred						2					2
Escaped											
Died				19	13						32
Remaining	5		3		215	52	3		2		280

San Lazaro Hospitals division—Continued.

LEPER DEPARTMENT.

Status.	Americans.		Europeans.		Filipinos.		Chinese.		Others.		Total.
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
In hospital July 1, 1913			1		109	28	3				141
Admitted				1	125	60	8				194
Discharged					18	11	6				35
Transferred				1	143	50					194
Escaped					13	6	5				24
Died					6						6
Remaining			1		54	21					76

MORGUE AND CREMATORY DEPARTMENT.

Disposition.	Bodies.
Remaining July 1, 1913	2
Received:	
Bacillary dysentery	3
Beriberi	5
Bubonic plague	2
Carcinoma	2
Cholera	79
Glanders	1
Leprosy	3
Pulmonary tuberculosis	89
Rabies	1
Stillborn	1
Tetanus	12
Typhoid fever	3
Other diseases	82
Total	285
Dropped:	
Buried by city	178
Buried by family	50
Cremated	23
Turned over to family	33
Turned over to Army morgue	1
Remaining in morgue	
Total	285

Autopsies held, 138.

SANITARY ENGINEERING DIVISION.

STATISTICAL INFORMATION BY DISTRICTS, MANILA ONLY, FISCAL HALF YEAR ENDED DECEMBER 31, 1913.

	Health districts.					
	No. 1.	Nos. 2 and 3.	No. 4.	No. 5.	No. 6.	Total.
Orders pending June 30, 1913						531
Orders issued:						
Minor orders	16	77	[a] 67	56	2	[a] 218
Sewer orders	21	76	41	2	2	142
Vacating orders	37	198	17	42	7	301
Total	74	351	[a] 125	100	11	[a] 661
Grand total	176	563	[a] 198	234	21	[a] 1,192
Orders completed:						
Minor orders	14	48	[a] 71	58	5	[a] 196
Sewer orders	30	84	11	6	2	133
Vacating orders	62	140	10	22	7	241
Total	106	272	[a] 92	86	14	[a] 570

[a] Including 1 provincial order.

San Lazaro Hospitals division—Continued.

STATISTICAL INFORMATION BY DISTRICTS, MANILA ONLY, FISCAL HALF YEAR ENDED DECEMBER 31, 1913—Continued.

	Health districts.					
	No. 1.	Nos. 2 and 3.	No. 4.	No. 5.	No. 6.	Total.
Orders canceled:						
Minor orders	1	21	7	7	1	37
Sewer orders	2	18	3			23
Vacating orders	1	38			1	40
Total	4	77	10	7	2	100
Orders pending Dec. 31, 1913:						
Minor orders	13	68	9	99	1	190
Sewer orders	45	106	79	9	3	242
Vacating orders	8	40	8	33	1	90
Total	66	214	96	141	5	522

STATISTICAL INFORMATION BY QUARTERS, MANILA ONLY.

	1913.		Total.
	July, Aug., and Sept.	Oct., Nov., and Dec.	
Orders pending June 30, 1913			531
Orders issued:			
Minor orders	184	[a]34	[a]218
Sewer orders	55	87	142
Vacating orders	176	125	301
Total	415	[a]246	[a]661
Grand total			[a]1,192
Orders completed:			
Minor orders	117	[a]79	[a]196
Sewer orders	56	77	133
Vacating orders	112	129	241
Total	285	[a]285	[a]570
Orders canceled:			
Minor orders	3	34	37
Sewer orders	2	21	23
Vacating orders	6	34	40
Total	11	89	100
Orders pending Dec. 31, 1913:			
Minor orders			190
Sewer orders			242
Vacating orders			90
Total			522

[a] Including 1 provincial order.

Sanitary engineering division—Continued.

STATISTICAL INFORMATION BY DISTRICTS, MANILA ONLY.

	Health districts.					
	Intramuros.	Meisic.	Sampaloc.	Tondo.	Paco.	Total.
Strong material plans approved for new buildings including additions and alterations	57	108	51	56	33	305
Strong material plans canceled	1				1	2
Permits for minor building construction:						
Approved	47	121	41	19	18	246
Disapproved	35	77	17	19	3	151
Grand total	140	306	109	94	55	704
New buildings completed	29	65	28	25	11	158
Light and mixed material structures:						
Permits approved		1	42	176	67	286
Permits disapproved			15	37	7	59
Total		1	57	213	74	345
Total number of building projects passed upon	169	372	194	332	140	1,207

STATISTICAL INFORMATION BY DISTRICTS.

	Health districts.					
	Intramuros.	Meisic.	Sampaloc.	Tondo.	Paco.	Total.
Prosecutions:						
Convictions	1	2	2	4	1	10
Withdrawals	[a] 1	[a] 3				[a] 4
Dismissals		[a] 1				[a] 1
Amount of fines	₱50	₱100	₱10	₱40	₱20	₱220

[a] Arrangements made to comply with the orders.

STATISTICAL INFORMATION BY QUARTERS.

	1913.		Total.
	July, Aug., and Sept.	Oct., Nov., and Dec.	
Prosecutions:			
Convictions	7	3	10
Withdrawals	[a] 2	[a] 2	[a] 4
Dismissals		[a] 1	[a] 1
Amount of fines	₱100	₱120	₱220

[a] Arrangements made to comply with the orders.

STATISTICAL INFORMATION BY DISTRICTS.

	Health districts.					
	Intramuros.	Meisic.	Sampaloc.	Tondo.	Paco.	Total.
Plumbing permits issued	142	322	97	71	33	665
Plumbing projects completed	137	315	98	58	32	640
Premises connected to the sanitary sewer to July 1, 1913	954	1,268	515	130	210	3,077
Premises connected July 1, to Dec. 31, 1913	75	171	44	26	10	326
Total Dec. 31, 1913	1,029	1,439	559	156	220	3,403

Sanitary engineering division—Continued.

STATISTICAL INFORMATION BY QUARTERS.

	1913.		Total.
	July, Aug., and Sept.	Oct., Nov., and Dec.	
Plumbing permits issued	270	395	665
Plumbing projects completed	268	372	640
Premises connected to the sanitary sewer to July 1, 1913			3,077
Premises connected July 1, to Dec. 31, 1913	175	151	326
Total Dec. 31, 1913			3,403

SOUTHERN ISLANDS HOSPITAL DIVISION.

HOSPITAL CASES.

Diseases.	Cases.
1. Typhoid fever	2
4. Malaria	19
4a. Including: Malarial cachexia	2
5. Smallpox	1
12. Asiatic cholera	1
14. Dysentery	15
17. Leprosy	1
19. Other epidemic diseases	11
20. Purulent infection and septichæmia	1
22. Anthrax	1
27. Beriberi	16
28. Tuberculosis of the lungs	8
31. Abdominal tuberculosis	1
34. Tuberculosis of other organs	3
35. Disseminated tuberculosis	1
37. Syphilis	2
38a. Soft chancre	2
38b. Gonococcus infection	2
39. Cancer and other malignant tumors of the buccal cavity	1
42. Cancer and other malignant tumors of the female genital organs	1
44. Cancer and other malignant tumors of the skin	1
45. Cancer and other malignant tumors of other organs or of organs not specified	3
46. Other tumors (tumors of the female genital organs excepted)	7
47. Acute articular rheumatism	2
54. Anæmia, chlorosis	1
56. Alcoholism (acute or chronic)	2
66. Paralysis without specified cause	2
68. Other forms of mental alienation	2
70. Convulsions (nonpuerperal)	1
71. Convulsions of infants	1
73a. Hysteria	1
75b. Trachoma	3
75c. Other diseases of the eyes and their annexa	32
79. Organic diseases of the heart	2
83. Diseases of the veins (varices, hæmorrhoids, phlebitis, etc.)	3
84. Diseases of the lymphatic system (lymphangitis, etc.)	2
89. Acute bronchitis	3
90. Chronic bronchitis	1
91. Broncho-pneumonia	1
92. Pneumonia	2
96. Asthma	1
98. Other diseases of the respiratory system (tuberculosis excepted)	1
99a. Diseases of the teeth and gums	3
99b. Other diseases of the mouth and annexa	1
100. Diseases of the pharynx	8
103. Other diseases of the stomach (cancer excepted)	3
105. Diarrhœa and enteritis (2 years and over)	1
106. Ankylostomiasis	20
107. Intestinal parasites	35
108. Appendicitis and typhlitis	6
109. Hernia, intestinal obstruction	6
110a. Diseases of the anus and fæcal fistulas	1
110b. Other diseases of the intestines	4
113. Cirrhosis of the liver	1
114. Biliary calculi	1
115. Other diseases of the liver	5
117. Simple peritonitis (nonpuerperal)	1
120. Bright's disease	2
123. Calculi of the urinary passage	3
124. Diseases of the bladder	2
127. Nonvenereal diseases of the male genital organs	3
128. Uterine hæmorrhage (nonpuerperal)	2
129. Uterine tumor (noncancerous)	1
130a. Metritis	6
130b. Other diseases of the uterus	7
131. Cysts and other tumors of the ovary	1
132. Salpingitis and other diseases of the female genital organs	1
133. Nonpuerperal diseases of the breast (cancer excepted)	4
134a. Normal labor	12
137. Puerperal septichæmia	2
143. Furuncle	1
144. Acute abscess	4
145c. Other diseases of the skin and annexa	12
147. Diseases of the joints (tuberculosis and rheumatism excepted)	1
149. Other diseases of the organs of locomotion	1
150. Congenital malformations (stillbirths not included)	9
151a. Nurslings discharged from hospital without disease	14
151b. Congenital debility, icterus, and sclerema	3
152. Other diseases peculiar to early infancy	1
153. Lack of care	2
154. Senility	1
167. Burns (conflagration excepted)	6
170. Traumatism by firearms	1
171. Traumatism by cutting or piercing instruments	1
172. Traumatism by fall	1
175. Traumatism by other crushing (vehicles, railways, landslides, etc.)	4
176. Injuries by animals	1
179. Effects of heat	1
183. Homicide by cutting or piercing instruments	21
184. Homicide by other means	1
185a. Dislocations	1
185b. Sprains	6
185c. Fractures	5
186. Other external violence	8
187. Ill-defined organic disease	1
189a. Cause of death not specified or ill-defined	10
Total	424

Southern Islands Hospital division—Continued.

OUTDOOR DEPARTMENT.

Diseases.	Cases.
4. Malaria	13
8. Whooping cough	4
14. Dysentery	11
17. Leprosy	1
19. Other epidemic diseases	11
20. Purulent infection and septichæmia	3
27. Beriberi	6
28. Tuberculosis of the lungs	11
34. Tuberculosis of other organs	7
37. Syphilis	5
38a. Soft chancre	4
38b. Gonococcus infection	10
39. Cancer and other malignant tumors of the vocal cavity	1
43. Cancer and other malignant tumors of the breast	2
46. Other tumors (tumors of the female genital organs excepted)	23
47. Acute articular rheumatism	18
48. Chronic rheumatism and gout	1
53. Leuchæmia	1
54. Anæmia, chlorosis	14
55. Other general diseases	11
63. Other diseases of the spinal cord	1
66. Paralysis without specified cause	2
68. Other forms of mental alienation	1
73a. Hysteria	4
73b. Neuralgia and neuritis	12
74. Other diseases of the nervous system	4
75b. Trachoma	20
75c. Other diseases of the eyes and their annexa	127
76. Diseases of the ears	15
79. Organic diseases of the heart	6
83. Diseases of the veins (varices, hæmorrhoids, phlebitis, etc.)	4
84. Diseases of the lymphatic system (lymphangitis, etc.)	7
86. Diseases of the nasal fossæ	8
87. Diseases of the larynx	4
89. Acute bronchitis	35
90. Chronic bronchitis	21
92. Pneumonia	1
96. Asthma	1
99a. Diseases of the teeth and gums	9
99b. Other diseases of the mouth and annexa	14
100. Diseases of the pharynx	41
103. Other diseases of the stomach (cancer excepted)	36
104. Diarrhœa and enteritis (under 2 years)	3
105. Diarrhœa and enteritis (2 years and over)	4
106. Ankylostomiasis	2
107. Intestinal parasites	22
108. Appendicitis and typhlitis	2
109. Hernia, intestinal obstruction	1
110a. Diseases of the anus and fæcal fistulas	1
110b. Other diseases of the intestines	10
115. Other diseases of the liver	3
116. Diseases of the spleen	3
119. Acute nephritis	3
120. Bright's disease	1
122. Other diseases of the kidneys and annexa	1
124. Diseases of the bladder	2
127. Nonvenereal diseases of the male genital organs	3
129. Uterine tumor (noncancerous)	3
130b. Other diseases of the uterus	11
132. Salpingitis and other diseases of the female genital organs	2
133. Nonpuerperal diseases of the breast (cancer excepted)	1
142. Gangrene	2
143. Furuncle	43
144. Acute abscess	35
145b. Scabies	11
145c. Other diseases of the skin and annexa	71
146. Diseases of the bones (tuberculosis excepted)	2
147. Diseases of the joints (tuberculosis and rheumatism excepted)	1
148. Amputations	1
149. Other diseases of the organs of locomotion	2
150. Congenital malformations (stillbirths not included)	7
154. Senility	1
165a. Venomous bites and stings	2
167. Burns (conflagration excepted)	10
170. Traumatism by firearms	1
171. Traumatism by cutting or piercing instruments	60
172. Traumatism by fall	2
173. Traumatism in mines and quarries	2
175. Traumatism by other crushing	3
176. Injuries by animals	5
183. Homicide by cutting or piercing instruments	51
185a. Dislocations	8
185b. Sprains	9
186. Other external violence	71
189a. Cause of death not specified or ill-defined	10
Total	1,013

Southern Islands Hospital division—Continued.

MISCELLANEOUS STATISTICS.

Nationality of patients admitted to hospital:	
Americans	50
Europeans	9
Filipinos	280
Australian	1
Other Asiatics	16
Total	356
Male patients	248
Female patients	108
Patients remaining from previous report	20
Patients admitted to hospital	356
Patients discharged	319
Patients died	29
Patients remaining December 31, 1913	28
Births	8
Prescriptions filled	1,687
Surgical dressings	7,038
Visits by outpatients	5,342
Major operations performed	45
Minor operations performed	225
Vaccinations in hospital	61

Laboratory examinations:	
Fæces	264
Urine	266
Blood	45
Sputum	24
Miscellaneous	11
Total	610

From the total of laboratory examinations, 51 were Americans, 519 Filipinos, 13 Europeans, 1 Australian, and 26 other Asiatics.

SECTION 4.—MISCELLANEOUS.

Page.
Statement of expenditures 333

FINANCIAL STATEMENT OF THE BUREAU OF HEALTH FOR PERIOD JULY 1 TO DEC. 31, 1913.

Balance June 30, 1913:				Dr.	Cr.
Land (real estate)			₱8,932.77		
Public works and improvements			208,045.61		
Equipment			544,758.28		₱761,736.66
Supplies account		₱126,318.78			
Prepayments		4,437.31			
Accounts receivable		92,194.49			
Cash—					
Treasury	(₱78,934.81)				
Other officers	22,676.02	(56,258.79)	166,692.79		
Accounts payable (deduct)			40,373.01		126,318.78
Appropriations—					
Allotment, fiscal year 1914		1,406,000.00			
Restored for Southern Islands Hospital		33,000.00			
Restored for prior year obligations		47,057.60			
Transferred by Governor-General for public charity		65,000.00	1,551,057.60		
Receipts from operation—					
Philippine General Hospital		69,345.23			
San Lazaro Hospitals		4,784.36			
Baguio Hospital		4,066.74			
Southern Islands Hospital		3,696.00			
Culion leper colony		3,139.52			
Sibul Springs		239.70			
Boards of examiners		2,060.00			
Central free dispensary		148.20			
General		6,163.49	93,643.24		
Prior year income			2,904.04		
Culion sales			3,043.20		
Refund, salaries of district health officers			32,418.62		1,683,066.70
	Net expenditure.	Operation expenses.	Total.		
Expenditures:					
Set aside: Improvement of Southern Islands Hospital	2,000.00		2,000.00	₱2,000.00	
General—					
Salaries and wages—					
General office	6,180.00				
Clerical division	13,481.24				
Statistical division	5,629.96				
Sanitary engineering division	9,597.61				
Property division	6,057.84				
Central free dispensary	1,721.17				
Sanitary station A	10,722.48				
Sanitary station C	9,658.32				
Sanitary station J	4,653.33				
Sanitary station I	4,192.68				
Sanitary station L	3,416.64				
Disinfecting division	3,219.34				
San Juan Tuberculosis Hospital	476.67				
Boards of examiners	1,206.00				
Iloilo Hospital	600.00				
Incidentals	208.67				
Accrued leave	11,405.00				
Stationery and office supplies—					
Clerical division	750.10				
Statistical division	8.90				
Sanitary engineering division	30.85				
Property division	154.10				
Central free dispensary	6.16				
Sanitary station A	56.49				
Sanitary station C	28.12				
Sanitary station I	29.59				
Sanitary station J	29.85				
Sanitary station L	18.12				
Printing and binding	10,523.25				
Library, periodicals	83.09				
Transportation—					
General	28.50				
Sanitary engineering division	880.00				
Disinfecting division	1,093.85				
Sanitary station A	480.00				
Sanitary station C	480.00				
Sanitary station I	480.00				
Sanitary station J	480.00				
Sanitary station L	480.00				

Financial statement of the Bureau of Health for period July 1 to Dec. 31, 1913—Continued.

	Net expenditure.	Operation expenses.	Total.	Dr.	Cr.
Expenditures—Continued.					
General—Continued.					
Commutation of bicycles—					
General	₱17.29				
Sanitary station A	118.71				
Sanitary station C	49.03				
Sanitary station I	60.00				
Sanitary station J	57.66				
Sanitary station L	10.00				
Sanitary engineering division	61.41				
Postage and telegrams	2,104.12				
Cablegrams	81.80				
Rental of post-office box	16.00				
Street-car tickets	2,810.00				
Hospicio de San José	21,396.10				
Colegio de Santa Isabel	1,248.00				
Asilo de San Vicente de Paul	1,800.00				
Diocese of Jaro	1,288.00				
Rental of station C	120.00				
Rental of telephones—					
General	257.55				
Sanitary station A	76.94				
Sanitary station C	76.94				
Sanitary station I	76.94				
Sanitary station J	96.18				
Sanitary station L	76.94				
Transportation from and to United States	2,435.94				
Traveling expenses of employees	465.90				
Transportation of freight	696.82				
Disinfectants	188.75				
Central free dispensary—					
Medicines	1,643.69				
Incidentals	2.10				
Medicines for indigent persons	4,747.71				
San Juan Tuberculosis Hospital:					
Medicines	174.46				
Incidentals	2.07				
Tuberculosis free dispensary	74.81				
Iloilo Hospital	40.25				
Incidentals—					
General	3,550.32				
Sanitary station A	37.76				
Sanitary station C	23.12				
Sanitary station I	.92				
Maintenance and repairs	404.50				
Depreciation and losses	3,912.60	₱158,347.65			
Equipment and furniture	(685.32)		₱157,662.33		
Sibul Springs—					
Salaries and wages	470.00				
Traveling expenses	66.00				
Incidental	44.43				
Depreciation and losses	5.79	586.22			
Equipment and furniture	(5.79)		580.43		
Inspection division—					
Salaries and wages—					
Medical inspectors	21,765.98				
District health officers	35,518.99				
Employees	2,019.97				
Accrued leave	4,399.49				
Transportation from and to United States	615.80				
Transportation	1,109.00				
Photographs	331.90				
Sera miscellaneous	2,335.40				
Traveling expenses—					
Medical inspectors	270.84				
District health officers	5,093.11				
Sanitary inspectors	43.92				
Repairs	604.18	74,108.58			
Equipment and furniture	144.04		74,252.62		
Vaccination division—					
Salaries and wages	2,767.98				
Traveling expenses	734.91				
Vaccine virus	13,211.00				

Financial statement of the Bureau of Health for period July 1 to Dec. 31, 1918—Continued.

	Net expenditure.	Operation expenses.	Total.	Dr.	Cr.
Expenditures—Continued.					
Vaccination division—Continued.					
Ice for virus	₱122.36				
Antiseptic supplies and dressings	396.80				
Incidentals	6.36	₱17,239.41	₱17,239.41		
San Lazaro Hospitals—					
Salaries and wages—					
Officers and employees	18,239.91				
Pupil nurses	753.00				
Accrued leave	592.00				
Subsistence supplies—					
Patients	29,570.65				
Employees	1,000.14				
Light	2,148.72				
Rental of telephone	204.19				
Forage and horseshoeing	4.20				
Commutation of bicycle	52.80				
Transportation	102.30				
Clothing of lepers	565.42				
Bedding insane	126.00				
Cigarettes and tobacco	256.08				
Soap	361.68				
Laundry allowances	221.79				
Gratuity to lepers	825.37				
Stationery and office supplies	22.98				
Medicines, medical and surgical supplies	5,188.32				
Incidental	4,501.39				
Repairs	36.58				
Depreciation and losses	488.81	65,262.33			
Equipment and furniture	807.92		66,070.25		
Philippine General Hospital—					
Salaries and wages—					
Officer and employees	65,162.66				
Pupil nurses	19,942.10				
Accrued leave	4,098.32				
Subsistence supplies—					
Patients	48,086.34				
Personnel	25,617.54				
Commutation of subsistence and quarters	300.00				
Light	6,956.92				
Rental of telephones	1,599.43				
Coal, oil, gas and steam	8,750.26				
Transportation	1,981.71				
Stationery and office supplies	1,058.27				
Printing	2,964.10				
Laundry—					
Hospital	24,337.72				
Allowances	4,078.97				
Maintenance of grounds	1,777.04				
Incidentals	965.35				
Medicines, medical and surgical supplies	16,269.44				
Transportation from and to United States	2,882.65				
Miscellaneous supplies	17,498.07				
Maintenance and repairs	2,096.73				
Postage stamps	140.00				
Street-car tickets	103.00				
Depreciation and losses	9,894.30	266,560.92			
Equipment and furniture	3,171.74		269,[illegible]82.66		
Baguio Hospital division—					
Salaries and wages	4,645.66				
Accrued leave	274.67				
Subsistence supplies—					
Patients	3,369.97				
Employees	2,079.17				
Stationery and office supplies	17.86				
Library, periodicals	10.14				
Fuel	772.50				
Light	344.50				
Freight	899.60				
Postage stamps	25.66				
Rental of telephone	144.00				
Medicines, medical and surgical supplies	1,851.75				
Incidentals	2,081.09				

Financial statement of the Bureau of Health for period July 1 to Dec. 31, 1913—Continued.

	Net expenditure.	Operation expenses.	Total.	Dr.	Cr.
Expenditures—Continued.					
Baguio Hospital division—Ctd.					
Laundry—					
Hospital	₱609.69				
Allowances	263.59				
Maintenance and repairs	154.84				
Depreciation and losses	456.43	₱18,001.12			
Equipment and furniture	316.13		₱18,317.25		
Culion leper colony division—					
Salaries and wages	16,753.24				
Accrued leave	333.17				
Subsistence supplies—					
Employees	6,513.23				
Lepers	78,965.30				
Stationery and office supplies	60.08				
Fuel and light	1,517.40				
Gratuity to lepers	16,542.00				
Clothing for lepers	2,139.60				
Bedding	114.00				
Medicines, medical and surgical supplies	5,782.15				
Miscellaneous supplies	4,236.57				
Postage stamps	34.44				
Freight	2,520.18				
Collections of lepers	10,860.95				
Incidentals	1,383.27				
Maintenance and repairs	1,694.04				
Depreciation and losses	2,953.96				
Operation of Culion stores	2,773.00	155,176.58			
Equipment and furniture	1,815.81				
Culion stores	4,407.00		161,399.39		
Prison sanitation division—					
Salaries and wages	4,020.59				
Accrued leave	80.00				
Commutation of subsistence and quarters	210.00				
Laundry allowances	48.25				
Medicines, medical and surgical supplies	6,053.04				
Incidentals	31.95	10,443.83	10,443.83		
Southern Islands Hospital—					
Salaries and wages	8,353.03				
Accrued leave	374.99				
Subsistence supplies—					
Patients	3,216.65				
Employees	2,142.83				
Medicines, medical and surgical supplies	2,329.89				
Transportation	261.00				
Traveling expenses	209.07				
Freight	164.68				
Stationery and office supplies	110.06				
Postage stamps	47.84				
Light and fuel	480.13				
Laundry allowances	316.84				
Incidentals	1,730.52				
Maintenance and repairs	273.50				
Rental of telephones	48.00	20,059.03			
Equipment and furniture	1,752.25		21,811.28		
Suppression of epidemic diseases and pests—					
Salaries and wages	1,154.33				
Traveling expenses	1,794.33				
Incidentals	1,002.73	3,951.39	3,951.39		
Bad debts	4.00	4.00	4.00		
Prior year expenses	67,726.85	67,726.85	67,726.85		
Total, operation expenses		857,467.91		₱857,467.91	
Total, net expenditures			871,191.69		
Supplies account	(21,435.10)		(21,435.10)		
Prepayment	(4,437.31)				
Total, funds expenditures			849,756.59		
Funds carried over for liabilities			40,338.06		

Financial statement of the Bureau of Health for period July 1 to Dec. 31, 1913—Continued.

	Net expenditure.	Operation expenses.	Total.	Dr.	Cr.
Expenditures—Continued.					
Prior year expenses—Ctd.					
Funds reverted				₱902,225.14	
Assets brought into account—					
Equipment	7,330.60				
Supplies	(37.59)				₱7,293.01
Balance remaining—					
Land (real estate)			8,932.77		
Public works and improvements			208,045.61		
Equipment			559,405.66		
				776,384.04	
Supplies account		104,846.09			
Culion stores		4,407.00			
Accounts receivable		83,494.00			
Cash—					
Treasury	(65,701.01)				
Officers	24,932.42	(40,768.59)	151,979.50		
Accounts payable (deduct)		99,640.44			
Culion currency (deduct)		12,000.00			
			111,640.44	40,338.06	
				2,578,415.15	2,578,415.15

FINANCIAL STATEMENT OF THE BUREAU OF HEALTH FOR PERIOD JULY 1 TO DEC. 31, 1913, FOR NON-CHRISTIAN TRIBES.

				Dr.	Cr.
Appropriations:					
Amount carried for fiscal year 1913—					
Cash—					
Treasury	₱55,378.63				
Officers	521.01	₱55,899.64			
Accounts payable (deduct)		1,747.23	₱54,152.41		
Act 2208 (half)			54,400.00		
Receipts from operation—					
Bontoc Hospital		473.41			
Butuan Hospital		425.86			
Bayombong Hospital		3.50			
			902.77		
					₱109,455.18

	Amounts.	Operation expenses.	Total.
Expenditures:			
Bontoc Hospital—			
Salaries and wages	5,707.55		
Accrued leave	187.73		
Subsistence supplies—			
Patients	4,537.41		
Employees	611.26		
Traveling expenses	50.55		
Laundry allowances	285.30		
Medicines	4,031.52		
Freight	1,825.47		
Incidentals	1,132.21		
Repairs	8.00		
Depreciation and losses	92.40	18,469.40	
Equipment	401.80		18,871.20
Butuan Hospital—			
Salaries and wages	2,943.60		
Accrued leave	242.22		
Subsistence supplies—			
Patients	569.96		
Employees	179.67		
Traveling expenses	221.63		
Medicines	736.99		
Incidentals	217.86		
Freight	36.77		
Laundry allowances	40.00		
Repairs	.94		
Depreciation and losses	6.60	5,196.24	
Equipment	271.25		5,467.49

Financial statement of the Bureau of Health for period July 1 to Dec. 31, 1913, for non-Christian tribes—Continued.

	Amounts.	Operation expenses.	Total.	Dr.	Cr.
Expenditures—Continued.					
Health work—					
Mountain Province—					
Salaries and wages	₱2,412.00				
Traveling expenses	413.90				
		₱2,825.90	₱2,825.90		
Agusan Province—					
Salaries and wages	597.09				
Traveling expenses	376.00				
		973.09	973.09		
Nueva Vizcaya Province—					
Salaries and wages	1,548.33				
Traveling expenses	309.00				
Medicines	457.38				
Freight	5.40				
		2,320.11	2,320.11		
Total, operation expenses		29,784.74		₱29,784.74	
Set aside	4,500.00		4,500.00	4,500.00	
Total expenses			34,957.79		
Outstanding obligations	496.00				
Reversion			74,001.39	74,001.39	
Equipment transferred to Health				673.05	
Balance remaining—					
Cash—					
Treasury	4,304.84				
Officers	719.53				
		5,024.37			
Accounts payable (deduct)		4,528.37			
				496.00	
				109,455.18	₱109,455.18

OVERSIZED PLACEHOLDER

FILE NAME____________________

STATISTICAL SUPPLEMENT WITH REFERENCE TO THE CENSUS OF 1914

GENERAL STATISTICS.

[Unless otherwise stated these statistics are for the half year ended Dec. 31, 1913.]

POPULATION OF THE CITY OF MANILA.

[Health Census 1914.]

BY NATIONALITIES.

Nationality.	Male.	Female.	Total.
Americans	3,584	1,890	5,474
Filipinos	125,730	111,210	236,940
Spaniards	2,414	1,992	4,406
Other Europeans	1,027	479	1,506
Chinese	15,235	1,422	16,657
All others	1,407	553	1,960
Total	149,397	117,546	266,943

BY DISTRICTS.

Health districts.	Male.	Female.	Total.
No. 1, Intramuros	18,467	13,586	32,053
No. 2, Meisic	57,121	32,943	90,064
No. 4, Sampaloc	22,856	21,367	44,223
No. 5, Tondo	36,520	35,279	71,799
No. 6, Paco	14,433	14,371	28,804
Total	149,397	117,546	266,943

NOTE.—The death rate in Manila figured on the new Bureau of Health census is 22.7 per 1,000 for males and 23.79 per 1,000 for females or 23.18 per 1,000 for the entire population, a reduction of 1.8 from the result as figured on the former census.

HEALTH CENSUS, 1914.

	Health districts.					Grand total.
	No. 1, Intramuros.	No. 2, Meisic.	No. 4, Sampaloc.	No. 5, Tondo.	No. 6, Paco.	
Houses:						
Strong material	1,804	7,035	2,030	935	579	12,383
Light material	787	1,329	2,883	6,790	2,835	14,624
Mixed material	253	644	1,003	1,907	850	4,057
Total	2,844	9,008	5,916	9,632	4,264	31,064
Males:						
Under 5 years—						
Americans	142	52	44	51	37	326
Filipinos	1,561	4,496	3,620	6,328	2,362	18,367
Spaniards	90	68	47	9	16	230
Other Europeans	15	13	39	4	4	75
Chinese	7	447	10	51	2	517
Other nationalities		32	15	2	4	53
From 5 to 14 years—						
Americans	132	86	65	38	53	324
Filipinos	2,020	4,989	3,406	6,141	2,431	18,987
Spaniards	101	132	120	9	30	392
Other Europeans	16	22	29	1	5	73
Chinese	30	821	39	61	8	959
Other nationalities	2	17	18	2	4	43

Health census, 1914—Continued.

	Health districts.					Grand total.
	No. 1, Intramuros.	No. 2, Meisic.	No. 4, Sampaloc.	No. 5, Tondo.	No. 6, Paco.	
Males—Continued.						
Over 14 years—						
Americans	1, 488	674	316	169	287	2, 934
Filipinos	11, 163	32, 351	13, 486	22, 736	8, 640	88, 376
Spaniards	761	540	333	73	85	1, 792
Other Europeans	147	372	215	36	109	879
Chinese	678	11, 352	671	757	301	13, 759
Other nationalities	114	707	383	52	55	1, 311
Total	18, 467	57, 121	22, 856	36, 520	14, 433	149, 397
Females:						
Under 5 years—						
Americans	111	55	57	37	50	310
Filipinos	1, 633	4, 505	3, 478	6, 358	2, 365	18, 339
Spaniards	88	88	39	11	25	251
Other Europeans	17	17	25	2	5	66
Chinese	8	374	6	38	4	430
Other nationalities	4	28	17	3	3	55
From 5 to 14 years—						
Americans	80	168	70	18	35	371
Filipinos	1, 820	4, 741	3, 426	6, 071	2, 507	18, 565
Spaniards	102	120	88	14	33	357
Other Europeans	18	16	40	2	2	78
Chinese	16	333	4	36		389
Other nationalities	4	15	8	5	4	36
Over 14 years—						
Americans	872	123	73	30	111	1, 209
Filipinos	7, 997	21, 388	13, 306	22, 553	9, 062	74, 306
Spaniards	624	286	317	56	101	1, 384
Other Europeans	123	41	120	23	28	335
Chinese	27	551	12	10	3	603
Other nationalities	42	94	281	12	33	462
Total	13, 586	32, 943	21, 367	35, 279	14, 371	117, 546
Social condition:						
Males—						
Single	12, 736	32, 205	13, 737	19, 653	8, 201	86, 532
Married	5, 398	23, 818	8, 426	15, 759	5, 767	59, 168
Widowed	322	1, 070	666	1, 107	462	3, 627
Divorced	11	28	27	1	3	70
Females—						
Single	7, 464	16, 137	10, 968	16, 490	7, 238	58, 297
Married	4, 887	13, 771	8, 234	15, 523	5, 751	48, 166
Widowed	1, 217	3, 003	2, 099	3, 266	1, 375	10, 960
Divorced	18	32	66		7	123
Transients in Manila (Filipinos):						
Males—						
Under 5 years	45	70	29	82	23	249
From 5 to 14 years	60	107	40	54	15	276
Over 14 years	376	1, 643	299	351	121	2, 790
Total	481	1, 820	368	487	159	3, 315
Females—						
Under 5 years	42	90	32	90	19	273
From 5 to 14 years	49	75	50	75	13	262
Over 14 years	343	602	215	379	122	1, 661
Total	434	767	297	544	154	2, 196

Population of Manila is 266,943 residents and 5,511 transients; total, 272,454.

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